

STIC Search Report Biotech-Chem Library

STIC Database Tracking Number

TO: Ralph J Gitomer Location: 3d65/3c18

Art Unit: 1655

Wednesday, August 03, 2005

Case Serial Number: 10/785042

From: Noble Jarrell

Location: Biotech-Chem Library

Rem 1B71

Phone: 272-2556

Noble.jarrell@uspto.gov

Sestaunales		
·		
*		
		·



=> d his

(FILE 'HOME' ENTERED AT 10:29:56 ON 03 AUG 2005)

FILE 'HCAPLUS' ENTERED AT 10:30:03 ON 03 AUG 2005 L1 1 (US2004167214 OR US2002022245)/PN

FILE 'REGISTRY' ENTERED AT 10:31:10 ON 03 AUG 2005

FILE 'HCAPLUS' ENTERED AT 10:31:12 ON 03 AUG 2005 L2 TRA L1 1- RN : 3 TERMS

FILE 'REGISTRY' ENTERED AT 10:31:12 ON 03 AUG 2005 L3 SEA L2

FILE 'WPIX' ENTERED AT 10:31:14 ON 03 AUG 2005 L4

=> b hcap FILE 'HCAPLUS' ENTERED AT 10:31:32 ON 03 AUG 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 3 Aug 2005 VOL 143 ISS 6 FILE LAST UPDATED: 2 Aug 2005 (20050802/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all 11

```
L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
```

AN 2002:89890 HCAPLUS

DN 136:129027

ED Entered STN: 01 Feb 2002

TI Drug screening method for the treatment and prophylaxis of obesity

IN Hebebrand, Johannes; Antel, Jochen; Preuschoff, Ulf; David, Samuel; Sann, Holger; Weske, Michael

PA Solvay Pharmaceuticals G.m.b.H., Germany

SO PCT Int. Appl., 27 pp. CODEN: PIXXD2

DT Patent

LA German

IC ICM A61P001-00

ICS G01N033-50

CC 1-1 (Pharmacology)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2002007821 A1 20020131 WO 2001-EP8051 20010712

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM,

```
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                20020131
                                             DE 2000-10035227
                                                                    20000720
                          Α1
    DE 10035227
                                20030120
                                             CA 2001-2416647
     CA 2416647
                          AA
                                                                     20010712
                                             EP 2001-955345
     EP 1307262
                          A1
                                20030507
                                                                    20010712
    EP 1307262
                                20041006
                          B1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FÍ, RO, MK, CY, AL, TR
                                20030701
                                            BR 2001-12547
    BR 2001012547
                          Α
                                                                    20010712
     JP 2004504053
                          T2
                                20040212
                                             JP 2002-513551
                                                                    20010712
                                             AT 2001-955345
     AT 278441
                          Ε
                                20041015
                                                                    20010712
    NZ 523960
                                20041224
                                            NZ 2001-523960
                                                                    20010712
                          Α
    ES 2230346
                          T3
                                20050501
                                             ES 2001-1955345
                                                                    20010712
                                            US 2001-907440
                         A1 . 20020221
                                                                    20010718 <--
    US 2002022245
                          Α
                                20040416
                                             ZA 2003-444
                                                                    20030116
     ZA 2003000444
     NO 2003000233
                          Α
                                20030319
                                             NO 2003-233
                                                                    20030117
    US 2004167213
                                            US 2004-785042
                          A1
                                20040826
                                                                    20040225
                                             US 2004-785043
    US 2004167214
                          A1
                                20040826
                                                                    20040225 <--
PRAI DE 2000-10035227
                          Α
                                20000720
     US 2000-219672P
                          Р
                                20000721
     WO 2001-EP8051
                          W
                                20010712
    US 2001-907440
                          A3
                                20010718
CLASS
                 CLASS PATENT FAMILY CLASSIFICATION CODES
 -----
                 _ _ _ _
                        _____
 WO 2002007821
                 ICM
                        A61P001-00
                 ICS
                        G01N033-50
 WO 2002007821
                        C12Q001/527
                 ECLA
 DE 10035227
                 ECLA
                        C12Q001/527
                        2G045/BB01; 2G045/BB51; 2G045/CB01; 2G045/FB01;
 JP 2004504053
                 FTERM
                        2G045/FB08; 4B063/QA01; 4B063/QA05; 4B063/QA18;
                        4B063/QQ08; 4B063/QR18; 4B063/QR77; 4B063/QS36; 4B063/QX07; 4C084/AA17; 4C084/NA14; 4C084/ZA702
                        435/026.000
 US 2002022245
                 NCL
                        C12Q001/527
                 ECLA
 US 2004167213
                 NCL
                        514/517.000
                 ECLA
                        C12Q001/527
 US 2004167214
                 NCL
                        514/517.000
                        C12Q001/527
                 ECLA
AB
     The invention relates to a method for screening compds. that can be used
     for the treatment and prophylaxis of obesity; the ability of the screened
     compds. to inhibit de novo lipogenesis in mammals and humans is determined
     Also disclosed is the use of compds. which are capable of inhibiting de
     novo lipogenesis in mammals in the production of drugs for the treatment
     and/or prophylaxis of obesity. Compds. that inhibit carboanhydrase
     subtypes II and V are selected by using adipocytes, hepatocytes or
     genetically produced enzymes. Selected compds. are also tested for
     anticonvulsant activity. Expts. with topiramate are reported.
ST
     drug screening obesity lipogenesis carboanhydrase inhibition topiramate
     antiobesity agent
TT
     Adipose tissue
        (adipocyte; drug screening method for treatment and prophylaxis of
        obesity)
ΙT
     Anticonvulsants
     Antiobesity agents
    Drug screening
    Human
    Obesity
        (drug screening method for treatment and prophylaxis of obesity)
ΙT
     Lipids, biological studies
     RL: PAC (Pharmacological activity); BIOL (Biological study)
```

(formation of; drug screening method for treatment and prophylaxis of obesity)

IT Liver

(hepatocyte; drug screening method for treatment and prophylaxis of obesity)

IT 452-35-7, Ethoxzolamide 97240-79-4, Topiramate

RL: PAC (Pharmacological activity); BIOL (Biological study)

(drug screening method for treatment and prophylaxis of obesity)

IT 9001-03-0, Dehydratase, carbonate

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of; drug screening method for treatment and prophylaxis of obesity)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Genentech Inc; WO 9409813 A 1994 HCAPLUS
- (2) Hellerstein, M; EUROPEAN JOURNAL OF CLINICAL NUTRITION 1999, V53(1), P53
- (3) Supuran, C; EXPERT OPINION ON THERAPEUTIC PATENTS V10(5), P575 HCAPLUS

=> b reg

FILE 'REGISTRY' ENTERED AT 10:31:40 ON 03 AUG 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 2 AUG 2005 HIGHEST RN 857941-82-3 DICTIONARY FILE UPDATES: 2 AUG 2005 HIGHEST RN 857941-82-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> d ide 13 tot

- L3 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN
- RN 97240-79-4 REGISTRY
- ED Entered STN: 21 Jul 1985
- CN β-D-Fructopyranose, 2,3:4,5-bis-O-(1-methylethylidene)-, sulfamate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 5H-Bis[1,3]dioxolo[4,5-b:4',5'-d]pyran, $\beta-D-fructopyranose$ deriv. OTHER NAMES:

```
2,3:4,5-Bis-O-(1-methylethylidene) \( \beta-D-fructopyranose \) sulfamate
CN
CN
     McN 4853
     RWJ 17021
CN
     Topamax
CN
     Topiramate
CN
CN
     Topomax
FS
     STEREOSEARCH
     C12 H21 N O8 S
MF
CI
     COM
                  ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*,
LC
       BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB,
       CEN, CHEMCATS, CIN, CSCHEM, DDFU, DIOGENES, DRUGU, EMBASE, IMSDRUGNEWS,
       IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, PATDPASPC, PHAR, PROMT,
       PROUSDDR, PS, RTECS*, SYNTHLINE, TOXCENTER, USAN, USPATZ, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:
                      WHO
```

Absolute stereochemistry. Rotation (-).

```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

```
686 REFERENCES IN FILE CA (1907 TO DATE)
               13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              692 REFERENCES IN FILE CAPLUS (1907 TO DATE)
     ANSWER 2 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN
L3
     9001-03-0 REGISTRY
RN
ED
     Entered STN: 16 Nov 1984
     Dehydratase, carbonate (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
CN
     Anhydrase
     Carbonate anhydrase
CN
     Carbonate dehydratase
CN
CN
     Carbonic acid anhydrase
CN
     Carbonic anhydrase
     Carboxyanhydrase
CN
     E.C. 4.2.1.1
CN
DR
     9044-52-4, 9052-41-9
MF
     Unspecified
CI
     MAN
                   ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
LC
       CA, CABA, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN,
       CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PROMT, TOXCENTER, USPAT2,
       USPATFULL
         (*File contains numerically searchable property data)
                       EINECS**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9515 REFERENCES IN FILE CA (1907 TO DATE) 314 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 9530 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L3 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN
- RN 452-35-7 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN 2-Benzothiazolesulfonamide, 6-ethoxy- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

- CN 6-Ethoxy-2-benzothiazolesulfonamide
- CN Cardrase
- CN Diuretic C
- CN Ethamide
- CN Ethoxyzolamide
- CN Ethoxzolamide
- CN Etoxzolamide
- CN Glaucotensil
- CN L 643786
- CN NSC 10679
- CN PNU 4191
- CN Redupresin
- CN U 4191
- FS 3D CONCORD
- MF C9 H10 N2 O3 S2
- CI COM
- LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
 CSCHEM, DDFU, DIOGENES, DRUGU, EMBASE, HODOC*, HSDB*, IFICDB, IFIPAT,
 IFIUDB, IPA, MEDLINE, MRCK*, PS, RTECS*, TOXCENTER, USAN, USPAT2,
 USPATFULL
 - (*File contains numerically searchable property data)
 Other Sources: EINECS**
 - (**Enter CHEMLIST File for up-to-date regulatory information)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 272 REFERENCES IN FILE CA (1907 TO DATE)
- 10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
- 272 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- 23 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> b wpix

FILE 'WPIX' ENTERED AT 10:31:45 ON 03 AUG 2005 COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED: 2 AUG 2005 <20050802/UP>
MOST RECENT DERWENT UPDATE: 200549 <200549/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:

. .

```
http://www.stn-international.de/training center/patents/stn guide.pdf <<<
>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
    http://thomsonderwent.com/coverage/latestupdates/
>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
    GUIDES, PLEASE VISIT:
    http://thomsonderwent.com/support/userguides/
                                                                <<<
>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
    DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
    FIRST VIEW - FILE WPIFV.
    FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<
>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
    PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
    FOR DETAILS. <<<
'BIX BI, ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE
=> d all 14 tot
     ANSWER 1 OF 1 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
     2002-180498 [24]
                        WPIX
DNC C2002-056198
     Selection and use of lipogenesis inhibitors for the treatment and
     prevention of obesity.
DC
     B05
     ANTEL, J; DAVID, S; HEBEBRAND, J; PREUSCHOFF, U; SANN, H; WESKE, M
IN
     (SOLV) SOLVAY PHARM GMBH; (ANTE-I) ANTEL J; (DAVI-I) DAVID S; (HEBE-I)
PA
     HEBEBRAND J; (PREU-I) PREUSCHOFF U; (SANN-I) SANN H; (WESK-I) WESKE M
CYC
    97
                     A1 20020131 (200224) *
                                                      A61K031-7004
    DE 10035227
PΙ
     US 2002022245
                   A1 20020221 (200224)
                                                      C120001-32
                    A1 20020131 (200224) GE
                                                      A61P001-00
     WO 2002007821
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DK DM
           DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
            LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD
            SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
     AU 2001077534
                    A 20020205 (200236)
                                                      A61P001-00
     NO 2003000233
                    Α
                        20030319 (200328)
                                                      C12Q001-34
                    A1 20030507 (200332) GE
     EP 1307262
                                                      A61P001-00
         R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
            RO SE SI TR
     SK 2003000061 A3 20030603 (200345)
                                                      A61P001-00
     CZ 2003000156
                    A3 20030618 (200347)
                                                      G01N033-50
                   A 20030315 (200350)
                                                      C120001-32
     KR 2003022284
    BR 2001012547
                   A 20030701 (200356)
                                                      A61P001-00
     CN 1443085
                    A 20030917 (200382)
                                                      A61P001-00
     HU 2003002309
                    A2 20031128 (200405)
                                                      A61P001-00
                                                37
     JP 2004504053
                    W
                       20040212 (200413)
                                                      C12Q001-527
                    A1 20040826 (200457)#
     US 2004167213
                                                      A61K031-255
    US 2004167214
                    A1 20040826 (200457)#
                                                      A61K031-34
                                                                     <--
                    A1 20030901 (200465)
                                                      A61P001-00
     MX 2002012907
                                                      A61P001-00
     EP 1307262
                    B1 20041006 (200466) GE
         R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC NL PT RO SE
            SI TR
                       20041111 (200474)
                                                      A61P001-00
    DE 50104023
                     G
    NZ 523960
                    A 20041224 (200506)
                                                      C12Q001-527
     ES 2230346
                     T3 20050501 (200532)
                                                      A61P001-00
ADT DE 10035227 A1 DE 2000-10035227 20000720; US 2002022245 A1 Provisional US
     2000-219672P 20000721, US 2001-907440 20010718; WO 2002007821 A1 WO
     2001-EP8051 20010712; AU 2001077534 A AU 2001-77534 20010712; NO
     2003000233 A WO 2001-EP8051 20010712, NO 2003-233 20030117; EP 1307262 A1
```

```
EP 2001-955345 20010712, WO 2001-EP8051 20010712; SK 2003000061 A3 WO
     2001-EP8051 20010712, SK 2003-61 20010712; CZ 2003000156 A3 WO 2001-EP8051
     20010712, CZ 2003-156 20010712; KR 2003022284 A KR 2003-700620 20030115;
     BR 2001012547 A BR 2001-12547 20010712, WO 2001-EP8051 20010712; CN
     1443085 A CN 2001-812973 20010712; HU 2003002309 A2 WO 2001-EP8051
     20010712. HU 2003-2309 20010712; JP 2004504053 W WO 2001-EP8051 20010712.
     JP 2002-513551 20010712; US 2004167213 Al Div ex US 2001-907440 20010718,
    US 2004-785042 20040225; US 2004167214 A1 Div ex US 2001-907440 20010718,
     US 2004-785043 20040225; MX 2002012907 A1 WO 2001-EP8051 20010712, MX
     2002-12907 20021219; EP 1307262 B1 EP 2001-955345 20010712, WO 2001-EP8051
     20010712; DE 50104023 G DE 2001-00104023 20010712, EP 2001-955345
     20010712, WO 2001-EP8051 20010712; NZ 523960 A NZ 2001-523960 20010712, WO
     2001-EP8051 20010712; ES 2230346 T3 EP 2001-955345 20010712
    AU 2001077534 A Based on WO 2002007821; EP 1307262 A1 Based on WO ·
     2002007821; SK 2003000061 A3 Based on WO 2002007821; CZ 2003000156 A3
     Based on WO 2002007821; BR 2001012547 A Based on WO 2002007821; HU
     2003002309 A2 Based on WO 2002007821; JP 2004504053 W Based on WO
     2002007821; MX 2002012907 A1 Based on WO 2002007821; EP 1307262 B1 Based
     on WO 2002007821; DE 50104023 G Based on EP 1307262, Based on WO
     2002007821; NZ 523960 A Based on WO 2002007821; ES 2230346 T3 Based on EP
     1307262
                          20000720; US 2004-785042
PRAI DE 2000-10035227
                                                         20040225:
     US 2004-785043
                          20040225
     ICM A61K031-255; A61K031-34; A61K031-7004; A61P001-00; C12Q001-32;
          C12Q001-34; C12Q001-527; G01N033-50
         A61K045-00; A61P003-00; A61P003-04; A61P003-06; C12Q001-02;
          G01N033-15; G01N033-68
    DE 10035227 A UPAB: 20020416
    NOVELTY - Compounds for the treatment and/or prevention of obesity are
     selected on the basis of their capability to inhibit de novo lipogenesis
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the
     use of compounds which are capable of inhibiting de novo lipogenesis in
    mammals and which have no anticonvulsant activity for the production of a
     medicament for the treatment and/or prevention of obesity.
          ACTIVITY - Anorectic.
          MECHANISM OF ACTION - Lipogenesis inhibitor; Carboanhydrase
     inhibitor.
          No biological data given.
          USE - For the treatment and prevention of obesity (claimed).
          ADVANTAGE - The method is simple, rapid and avoids protracted and
     expensive in vivo tests, including feeding experiments on animals.
     Dwg.0/0
    CPI
    AB
     CPI: B11-C08E3; B12-K04A; B14-E12
=> b home
FILE 'HOME' ENTERED AT 10:31:53 ON 03 AUG 2005
```

FS

FΑ

```
=> d his full
```

 L_2

L5

L16

L23

```
(FILE 'HOME' ENTERED AT 10:29:56 ON 03 AUG 2005)
```

FILE 'HCAPLUS' ENTERED AT 10:30:03 ON 03 AUG 2005 1 SEA ABB=ON PLU=ON (US2004167214 OR US2002022245)/PN T.1

FILE 'REGISTRY' ENTERED AT 10:31:10 ON 03 AUG 2005

FILE 'HCAPLUS' ENTERED AT 10:31:12 ON 03 AUG 2005 TRA L1 1- RN : 3 TERMS

FILE 'REGISTRY' ENTERED AT 10:31:12 ON 03 AUG 2005 3 SEA ABB=ON PLU=ON L2 1.3

FILE 'WPIX' ENTERED AT 10:31:14 ON 03 AUG 2005 1 SEA ABB=ON PLU=ON (US2004167214 OR US2002022245)/PN L4

FILE 'HCAPLUS' ENTERED AT 10:35:58 ON 03 AUG 2005 E ADIPOSE TISSUE/CT

E E3+ALL

41716 SEA ABB=ON PLU=ON ADIPOSE TISSUE+NT/CT

E E13+ALL

23346 SEA ABB=ON PLU=ON OBESITY+NT/CT L6

E E7+ALL

6210 SEA ABB=ON PLU=ON ANTIOBESITY AGENTS+OLD/CT L7

> E APPETITE/CT E E3A+LL

E APPETITE/CT

E E3+ALL

15243 SEA ABB=ON PLU=ON APPETITE+NT/CT L8

E APPETITE DEPRESSANTS/CT

E E3+ALL

Ь9 2373 SEA ABB=ON PLU=ON APPETITE DEPRESSANTS+OLD/CT

E BODY WEIGHT/CT

E E3+ALL

L10 19434 SEA ABB=ON PLU=ON BODY WEIGHT/CT

> E LIPIDS/CT E E3+OLD.NT1

QUE ABB=ON PLU=ON LIPIDS+OLD, NT1/CT L11

L12

152074 SEA ABB=ON PLU=ON LIPID#/CW 31294 SEA ABB=ON PLU=ON (L11 OR L12) (L)FORMAT? L13

E LIPOGENESIS/CT

4657 SEA ABB=ON PLU=ON LIPOGENES? L14

L15 34708 SEA ABB=ON PLU=ON DRUG SCREENING+OLD/CT

28 SEA ABB=ON PLU=ON L15 AND (L13 OR L14)

19 SEA ABB=ON PLU=ON L16 AND (L5 OR L6 OR L7 OR L8 OR L9 OR L17 L10)

17 SEA ABB=ON PLU=ON L17 AND (?INHIBIT? OR ?MODULAT? OR ?BLOCK? L18 OR ?PREVENT? OR ANTAGON?)

QUE ABB=ON PLU=ON PY<=2001 OR AY<=2001 OR PRY<=2001 OR L19 PD<20010718 OR AD<20010718 OR PRD<20010718

12 SEA ABB=ON PLU=ON L18 AND L19 L20

E HEBEBRAND J/AU

96 SEA ABB=ON PLU=ON ("HEBEBRAND J"/AU OR "HEBEBRAND JOHANNES"/A L21 U)

E ANTEL J/AU

83 SEA ABB=ON PLU=ON ("ANTEL J"/AU OR "ANTEL J P"/AU OR "ANTEL L22

JOCHEN"/AU) E PREUSCHOFF U/AU

18 SEA ABB=ON PLU=ON "PREUSCHOFF ULF"/AU

E SANN H/AU

247 SEA ABB=ON PLU=ON ("SANN H"/AU OR "SANN H J"/AU OR "SANN L24

HOLGER"/AU)

E WESKE M/AU

8 SEA ABB=ON PLU=ON ("WESKE M"/AU OR "WESKE MICHAEL"/AU) 1.25

```
E SOLVAY/CS, PA
           4044 SEA ABB=ON PLU=ON SOLVAY/CS, PA
1 SEA ABB=ON PLU=ON L18 AND (L21 OR L22 OR L23 OR L24 OR L25
L26
L27
                OR L26)
             11 SEA ABB=ON PLU=ON L20 NOT L27
L28
             10 SEA ABB=ON PLU=ON ("131:98053"/AN OR "133:129884"/AN OR
L29
                "133:159935"/AN OR "136:227973"/AN OR "137:210957"/AN OR
                "137:257694"/AN OR "137:43447"/AN OR "139:79155"/AN OR
                "139:81326"/AN OR "142:171141"/AN OR "1999:454261"/AN OR
                "2000:548711"/AN OR "2000:573930"/AN OR "2002:172081"/AN OR
                "2002:466175"/AN OR "2002:675784"/AN OR "2002:736796"/AN OR
                "2003:511096"/AN OR "2003:511950"/AN OR "2005:99131"/AN) AND
                T.11
     FILE 'REGISTRY' ENTERED AT 11:08:16 ON 03 AUG 2005
              1 SEA ABB=ON PLU=ON L3 AND DEHYDRA?
L30
                D SCA
              O SEA ABB=ON PLU=ON CARBOANHYDRAS?/CNS
L31
            543 SEA ABB=ON PLU=ON DEHYDRATAS? (1A) CARBONAT?
L32
     FILE 'HCAPLUS' ENTERED AT 11:10:06 ON 03 AUG 2005
           9530 SEA ABB=ON PLU=ON L30
L33
           9645 SEA ABB=ON PLU=ON L32
L34
          11627 SEA ABB=ON PLU=ON CARBOANHYDRASE? OR ANHYDRASE OR CARBOXYANHY
L35
                DRASE OR "E.C.4.2.1.1" OR "EC4.2.1.1" OR (E(1A)C OR EC) (1A) "4.2
                .1.1" OR DEHYDRATAS? (1A) CARBON?
              O SEA ABB=ON PLU=ON (L33 OR L34 OR L35) AND L29
L36
              1 SEA ABB=ON PLU=ON (L33 OR L34 OR L35) AND L27
L37
L38
            102 SEA ABB=ON PLU=ON (L33 OR L34 OR L35) AND L15
                D OUE L18
             81 SEA ABB=ON PLU=ON L38 AND (?INHIBIT? OR ?MODULAT? OR ?BLOCK?
L39
                OR ?PREVENT? OR ANTAGON?)
T.40
              3 SEA ABB=ON PLU=ON L38 AND (L5 OR L6 OR L7 OR L8 OR L9)
L41
              2 SEA ABB=ON PLU=ON L39 AND L40
              1 SEA ABB=ON PLU=ON L41 AND (L21 OR L22 OR L23 OR L24 OR L25
L42
                OR L26)
L43
              1 SEA ABB=ON
                            PLU=ON L41 NOT L42
              1 SEA ABB=ON PLU=ON (L27 OR L37 OR L42)
L44
L45
             11 SEA ABB=ON PLU=ON (L29 OR L43)
=> b hcap
FILE 'HCAPLUS' ENTERED AT 11:17:25 ON 03 AUG 2005
```

FILE 'HCAPLUS' ENTERED AT 11:17:25 ON 03 AUG 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 3 Aug 2005 VOL 143 ISS 6 FILE LAST UPDATED: 2 Aug 2005 (20050802/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all 144 tot

```
L44 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
    2002:89890 HCAPLUS
AN
    136:129027
DN
    Entered STN: 01 Feb 2002
ED
    Drug screening method for the treatment and prophylaxis of obesity
тT
    Hebebrand, Johannes; Antel, Jochen; Preuschoff,
    Ulf; David, Samuel; Sann, Holger; Weske, Michael
    Solvay Pharmaceuticals G.m.b.H., Germany
PΑ
    PCT Int. Appl., 27 pp.
    CODEN: PIXXD2
DT
    Patent
    German
LΑ
    ICM A61P001-00
TC
     ICS G01N033-50
CC
    1-1 (Pharmacology)
FAN.CNT 1
                                        APPLICATION NO. DATE
                       KIND DATE
    PATENT NO.
                       ----
                                          -----
                                                                -----
     -----
                              20020131 WO 2001-EP8051
    WO 2002007821
                       A1
                                                                20010712
PΙ
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM,
            HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
            LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
        RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                               20020131 DE 2000-10035227
                        A1
                                                               20000720
    DE 10035227
                                          CA 2001-2416647
    CA 2416647
                        AA
                               20030120
                                                                 20010712
                                          EP 2001-955345
    EP 1307262
                         A1
                               20030507
                                                                 20010712
    EP 1307262
                               20041006
                        B1
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
    BR 2001012547 A 20030701 BR 2001-12547
                                                                 20010712
    JP 2004504053
                                          JP 2002-513551
                         T2
                               20040212
                                                                 20010712
                              E
    AT 278441
                                                                20010712
                             20041224 NZ 2001-523960
    NZ 523960
                        Α
                                                                20010712
    ES 2230346
                       T3 20050501 ES 2001-1955345
                                                                20010712
    ES 2230346
US 2002022245
A1 20020221
US 2001-907440
ZA 2003000444
NO 2003000233
A 20030319
NO 2003-233
                                                                20010718
                                                                 20030116
                                                                 20030117
                       A1 20040826
    US 2004167213
                                         US 2004-785042
                                                                20040225
    US 2004167214
                       A1 20040826
                                         US 2004-785043
                                                                20040225
PRAI DE 2000-10035227 A
                              20000720
    US 2000-219672P
                        P
                               20000721
    WO 2001-EP8051
                         W
                               20010712
    US 2001-907440
                        Α3
                               20010718
CLASS
               CLASS PATENT FAMILY CLASSIFICATION CODES
                      .....
 -----
               ----
                ICM
                       A61P001-00
WO 2002007821
                ICS
                       G01N033-50
WO 2002007821
               ECLA
                       C120001/527
                ECLA
                       C12Q001/527
DE 10035227
                       2G045/BB01; 2G045/BB51; 2G045/CB01; 2G045/FB01;
JP 2004504053
                FTERM
                       2G045/FB08; 4B063/QA01; 4B063/QA05; 4B063/QA18;
                       4B063/QQ08; 4B063/QR18; 4B063/QR77; 4B063/QS36;
                       4B063/QX07; 4C084/AA17; 4C084/NA14; 4C084/ZA702
US 2002022245
                NCL
                       435/026.000
                ECLA
                       C12Q001/527
US 2004167213
                NCL.
                       514/517.000
                       C12Q001/527
                ECLA
US 2004167214
                NCL
                       514/517.000
                ECLA C12Q001/527
```

```
AΒ
     The invention relates to a method for screening compds. that can be used
     for the treatment and prophylaxis of obesity; the ability of the screened
     compds. to inhibit de novo lipogenesis in mammals and
     humans is determined Also disclosed is the use of compds. which are capable of
     inhibiting de novo lipogenesis in mammals in the production
     of drugs for the treatment and/or prophylaxis of obesity.
                                                                Compds. that
     inhibit carboanhydrase subtypes II and V are selected by
     using adipocytes, hepatocytes or genetically produced enzymes. Selected
     compds. are also tested for anticonvulsant activity. Expts. with
     topiramate are reported.
ST
     drug screening obesity lipogenesis carboanhydrase
     inhibition topiramate antiobesity agent
TТ
     Adipose tissue
        (adipocyte; drug screening method for treatment and prophylaxis of
        obesity)
     Anticonvulsants
IT
       Antiobesity agents
       Drug screening
     Human
       Obesity
        (drug screening method for treatment and prophylaxis of obesity)
     Lipids, biological studies
IT
     RL: PAC (Pharmacological activity); BIOL (Biological study)
        (formation of; drug screening method for treatment and
        prophylaxis of obesity)
IT
     Liver
        (hepatocyte; drug screening method for treatment and prophylaxis of
        obesity)
TT
     452-35-7, Ethoxzolamide 97240-79-4, Topiramate
     RL: PAC (Pharmacological activity); BIOL (Biological study)
        (drug screening method for treatment and prophylaxis of obesity)
TΤ
     9001-03-0, Dehydratase, carbonate
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibition of; drug screening method for treatment and
        prophylaxis of obesity)
RE.CNT
             THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Genentech Inc; WO 9409813 A 1994 HCAPLUS
(2) Hellerstein, M; EUROPEAN JOURNAL OF CLINICAL NUTRITION 1999, V53(1), P53
(3) Supuran, C; EXPERT OPINION ON THERAPEUTIC PATENTS V10(5), P575 HCAPLUS
=> d all hitstr 145 tot
L45 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
     2005:99131 HCAPLUS
AN
DN
     142:171141
ED
     Entered STN: 04 Feb 2005
     Protein and cDNA sequences for human fibroblast growth factor-19 (FGF19)
TI
     and methods of using FGF19 and FGFR4 for the treatment of obesity and
     related disorders
     Adams, Sean; Goddard, Audrey; Gurney, Austin L.; John, Linu; Stewart,
IN
     Timothy A.; Tomlinson, Elizabeth; Yu, Xing Xian
PΑ
     Genentech, Inc., USA
SO
    U.S. Pat. Appl. Publ., 79 pp., Cont.-in-part of U.S. Ser. No. 712,560.
     CODEN: USXXCO
DT
     Patent
LΑ
     English
     ICM A61K048-00
IC
     ICS A61K038-18; C12N015-85
INCL 514012000; 514044000; 435455000
     3-3 (Biochemical Genetics)
     Section cross-reference(s): 1, 2, 13
FAN.CNT 123
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
```

```
20050203
                                                                                      20040526
      US 2005026832
                                A1
                                                      US 2004-855211
PΤ
      WO 9927100
                                A1
                                        19990603
                                                       WO 1998-US25190
                                                                                      19981125
           W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
                TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
           RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                         20000525
                                                        ZA 1998-10781
      ZA 9810781
                                                                                      19981125
                                Α
      NZ 528704
                                 Α
                                         20050225
                                                        NZ 1999-528704
                                                                                     19990308
      US 2002012961
                                 A1
                                         20020131
                                                        US 1999-284663
                                                                                     19990415
      WO 2000015666
                                                        WO 1999-US20594
                                 A2
                                         20000323
                                                                                      19990908
                                         20001123
      WO 2000015666
                                 A3
           W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
                CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
                IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
           MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
                PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      WO 2000015796
                                A2
                                        20000323
                                                        WO 1999-US21090
                                                                                      19990915
      WO 2000015796
                                A3
                                         20000824
           W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
                IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
                MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG_{\uparrow} SI, SK,
                SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,

    KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,

                CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      JP 2004507201
                                T2
                                      20040311 JP 2000-570323
                                                                                      19990915
                                        20041013 EP 2004-7618
      EP 1466977
                                A1
                                                                                     19991202
           R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY
                                                        WO 1999-US30999
      WO 2001005836
                                 A1
                                         20010125
                                                                                      19991220
           W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
                CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
                IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
                KG, KZ, MD, RU, TJ, TM
           RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
                DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      NZ 523206
                                 Α
                                         20041224
                                                       NZ 2000-523206
                                                                                      20000211
      NZ 523207
                                         20041224
                                                        NZ 2000-523207
                                                                                      20000211
                                 Α
      NZ 517395
                                         20040130
                                                      NZ 2000-517395
                                 Α
                                                                                      20000309
                                         20010308
                                                       CA 2000-2380355
                                                                                      20000824
      CA 2380355
                                 AA
      CA 2481685
                                 AA
                                         20010308
                                                        CA 2000-2481685
                                                                                      20000824
      CA 2481691
                                 ÀΑ
                                         20010308
                                                        CA 2000-2481691
                                                                                      20000824
      CA 2481731
                                                        CA 2000-2481731
                                AA
                                         20010308
                                                                                      20000824
      CA 2481756
                                AA
                                         20010308
                                                        CA 2000-2481756
                                                                                      20000824
      CA 2481788
                                 AA
                                         20010308
                                                        CA 2000-2481788
                                                                                      20000824
      US 2002042367
                                                        US 2001-767609
                                 A1
                                         20020411
                                                                                      20010122
      US 2002058309
                                 Α1
                                         20020516
                                                        US 2001-866028
                                                                                      20010525
      US 6642360
                                 B2
                                         20031104
      CA 2419541
                                                        CA 2001-2419541
                                 AA
                                         20020228
                                                                                      20010530
      JP 2004520811
                                 T2
                                         20040715
                                                        JP 2002-522282
                                                                                      20010530
                                A1
                                                        US 2001-902572
      US 2003108983
                                         20030612
                                                                                      20010710
      US 2003113718
                                 A1
                                         20030619
                                                        US 2001-902979
                                                                                      20010710
      US .2003104381
                                 A1
                                         20030605
                                                        US 2001-903823
                                                                                      20010711
                                                        US 2001-903806
      US 2003130489
                                A1
                                         20030710
                                                                                      20010711
```

	2003148419		A 1	20030807	US 2001-903603		20	0010	711	
	6767995		B2	20040727						
	2003187238		A1	20031002	US 2001-903562			0010		
	2003113719		A1		20030619 US 2001-905125			20010712		
	6664376		В2	20031216						
	2003135025		A1	20030717	US 2001-904992			0010		
	2003152999		A1	20030814	US 2001-904766		20	0010	712	
	2003211569		A1	20031113	US 2001-904938		20	010	712	
	2003129592		A1	20030710	US 2001-905449		20	010	713	
US	2003148370		A1	20030807	US 2001-904838		20	0010	713	
US	2003152922		A1	20030814	US 2001-904532		20	0010	713	
US	2003166051		A1	20030904	US 2001-904920		20	0010	713	
US	6806352		B2	20041019						
US	2003113838		A1	20030619	US 2001-906815		20	010	716	
US	2003148371		A1	20030807	US 2001-906777		20	0010	716	
US	2003190610		A1	20031009	US 2001-906618		20	010	716	
US	6828146		В2	20041207						
US	2003215904		A1	20031120	US 2001-906722		20	010	716	
US	2003104469		A 1	20030605	US 2001-907652		20	010	717	
US	2003190611		A 1	20031009	US 2001-907728		20	010	717	
US	2004005553		A1	20040108	US 2001-908576		20	010	718	
ΑU	758921		B2	20030403	AU 2001-57764		20	010	801	
ΑU	759004		B2	20030403	AU 2001-57765		20	010	801	
	2002155543		A1	20021024	US 2001-924647			010		
CA	2420193		AA	20020228	CA 2001-2420193		20	010	823	
JP	2004520810		Т2	20040715	JP 2002-522275			010		
	2003207803		A1	20031106	US 2001-143026			0011		
	2003170254		A1	20030911	US 2001-17191			0011		
	2003199021		A1	20031023	US 2001-13924			011		
	2003032057		À1	20030213	US 2001-2796			011		
	1397383		A2	20040317	EP 2001-990229			011		
					GB, GR, IT, LI, LU,	NT.				
				FI, RO, MK,		111,	55,	1.0,	,	
IIC	2003032062		A1	20030213	US 2002-66273		21	020	201	
	2003032062		A1	20030213	US 2002-66494			020		
	2003032063		A1	20030213	US 2002-66269			020		
			A1		US 2002-66193					
	2003044902 2003044844			20030306	US 2002-66211			020		
	772759		A1 B2	20030306				020		
				20040506	AU 2002-14767			020		
	772723		B2	20040506	AU 2002-14769			020		
	772734		B2 '		AU 2002-14771			020		
	778585		B2	20041209	AU 2002-14753			020		
	2449602		AA	20021219	CA 2002-2449602			020		
	2002101069		A2	20021219	WO 2002-US10513		20	020	403	
WO	2002101069		A3	20030904	DA DD DG DD DV	D.17	G.	arr	CDI	
	W: AE, AG,	AL, A	Μ,	AT, AU, AZ,	BA, BB, BG, BR, BY, DZ, EC, EE, ES, FI,	BZ,	CA,	CH,	CN,	
	•		•		JP, KE, KG, KP, KR,	•	•		LR,	
					MK, MN, MW, MX, MZ,				PH,	
	PL, PT,				SI, SK, SL, TJ, TM,	TN,	TR,	TT,	TZ,	
	UA, UG,			YU, ZA, ZM,	ZW	PT 1	224		D11	
					SL, SZ, TZ, UG, ZM,					
	KG, KZ,	-	-		BE, CH, CY, DE, DK,		•	-	-	
					SE, TR, BF, BJ, CF,	CG,	CI,	CM,	GA,	
	GN, GQ,			MR, NE, SN,	TD, TG					
EΡ	1402260		A2	20040331	EP 2002-731246			020		
					GB, GR, IT, LI, LU,	ΝL,	SE,	MC,	PT,	
				FI, RO, MK,						
JP	2005500030		T2	20050106	JP 2003-503819			020		
US	2003148438		A1	20030807	US 2002-145821			020		
US			A1	20030911	US 2002-145634			020		
	2003166084		A1	20030904	US 2002-146793			020		
	2003134380		A1	20030717	US 2002-147509			020		
	2004214269		A1	20041028	US 2002-147518		20	020	516	
	2003180875		A1	20030925	US 2002-147505			020		
US	2003199027	1	A1	20031023	US 2002-152396		20	020	520	

			00050405	110 0000 150500	00000500
	US 2005074837	A1	20050407	US 2002-158788	20020530
1	US 2003068695	A1	20030410	US 2002-192012	20020709
1	US 2003068696	A1	20030410	US 2002-192014	20020709
1	US 2003049743	A1	20030313	US 2002-194394	20020711
	US 2003049745	A1	20030313	US 2002-194485	20020711
	US 2003064446	A1	20030313	US 2002-194460	20020711
	US 2003153037	A1	20030814	US 2002-194457	20020711
1	US 2003059879	A1	20030327	US 2002-194456	20020712
1	US 2003064448	A1	20030403	US 2002-194484	20020712
1	US 2003049747	A1	20030313	US 2002-195899	20020715
	US 2003064449	A1	20030403	US 2002-195884	20020715
				US 2002-195896	
	US 2003063112	A1	20030403		20020715
1	US 2003068705	A1	20030410	US 2002-195886	20020715
1	US 2003068706	A1	20030410	US 2002-195891	20020715
1	US 2003071834	A1	20030417	US 2002-195898	20020715
1	US 2003049749	A1	20030313	US 2002-196750	20020716
	US 2003065159	A1	20030403	US 2002-196757	20020716
	US 2003068710	A1	20030410	US 2002-196761	20020716
	US 2003104547	A1	20030605	US 2002-197701	20020717
1	US 2003104548	A1	20030605	US 2002-197706	20020717
1	US 2003207398	A1	20031106	US 2002-198759	20020718
. 1	US 2003215910	A1	20031120	US 2002-199463	20020718
	US 2003180881	A1	20030925	US 2002-202475	20020723
	US 2003160661	A1 .	20030403	US 2002-206919	20020725
	US 2003064463	A1	20030403	US 2002-206922	20020726
1	US 2003068756	A1	20030410	US 2002-206912	20020726
1	US 2003068759	A1	20030410	US 2002-206920	20020726
1	US 2003068760	A1	20030410	US 2002-206921	20020726
	US 2003073183	A1	20030417	US 2002-206917	20020726
				US 2002-205910	
	US 2003096359	A1	20030522		20020726
	US 2004048334	A1	20040311	US 2002-205890	20020726
1	US 2003068765	A1	20030410	US 2002-207916	20020729
1	US 2003068766	A1	20030410	US 2002-207917	20020729
1	US 2003068769	A1	20030410	US 2002-207920	20020729
	US 2003068773	A1	20030410	US 2002-208023	20020729
			20030410		
	US 2003068774	A1		US 2002-208026	20020729
	US 2003073184	A1	20030417	US 2002-207923	20020729
1	US 2003073185	A1	20030417	US 2002-207924	20020729
1	US 2003215912	A1	20031120	US 2002-207915	20020729
1	US 2004048335	A1	20040311	US 2002-208024	20020729
	US 2003120056	A1	20030626	US 2002-289498	20021105
	US 2003144498	A1	20030731	US 2002-289527	20021105
	US 2004249141	A1	20041209	US 2002-289490	20021105
1	US 2003224984	A1	20031204	US 2002-305654	20021126
1	US 2003199044	A1	20031023	US 2003-410552	20030408
1	US 2004146908	A1	20040729	US 2003-712560	20031112
_	US 2004258710	A1	20041223	US 2004-791618	20040302
	US 2005009105	A1	20050113	US 2004-916250	20040811
	US 2005019823	A1	20050127	US 2004-931886	20040831
1	US 2005153396	A1	20050714	US 2004-955952	20040929
1	US 2005153348	A1	20050714	US 2004-20604	20041221
1	US 2005164266	A1	20050728	US 2005-36582	20050113
	US 2005136515	A1	20050623	US 2005-56802	20050211
	US 2005136475	A1	20050623	US 2005-60652	20050216
	US 2005158830	A1	20050721	US 2005-80062	20050314
PRAI (US 1997-66840P	P	19971125		
1	US 1998-158342	B1	19980921		
	WO 1998-US25190	A1	19981125		
	US 1999-284663	A2	19990415		
	WO 1999-US20594	A	19990908		
	WO 1999-US21090	Α	19990915		
Ī	WO 1999-US30999	Α	19991220		
τ	US 2000-522342	B2	20000309		
	US 2001-767609	A2	20010122		
	US 2001-924647	A1	20010122		
Į.	US 2003-712560	A2	20031112		

```
19970826
US 1997-56974P
US 1997-59115P
                      Р
                            199.70917
                      P
                            19970918
US 1997-59263P
                      Ρ
                            19970919
US 1997-59588P
                      Р
US 1997-62285P
                            19971017
                      Ρ
US 1997-62816P
                            19971024
US 1997-63082P
                      P
                            19971024
                      Р
US 1997-63327P
                            19971027
US 1997-63329P
                      Р
                            19971027
US 1997-63541P
                      Ρ
                            19971028
                      Р
                            19971028
US 1997-63542P
                      P
                            19971028
US 1997-63544P
US 1997-63549P
                      Ρ
                            19971028
                      Р
US 1997-63550P
                            19971028
                      Ρ
US 1997-63564P
                            19971028
US 1997-63435P
                      Ρ
                            19971029
                      Р
                            19971029
US 1997-63704P
                            19971029
US 1997-63732P
                      Р
US 1997-63733P
                      Ρ
                            19971029
                      Р
                            19971029
US 1997-63734P
                      Р
                            19971029
US 1997-63735P
US 1997-63738P
                      Р
                            19971029
US 1997-64215P
                      Р
                            19971029
US 1997-63870P
                      Р
                            19971031
                      Р
                            19971031
US 1997-64103P
                      Ρ
US 1997-64248P
                            19971103
US 1997-64809P
                      Ρ
                            19971107
                      Ρ
US 1997-65186P
                            19971112
                      Ρ
                            19971117
US 1997-65846P
US 1997-65693P
                      P
                            19971118
                      P
                            19971121
US 1997-66120P
US 1997-66364P
                      Ρ
                            19971121
US 1997-66453P
                      Р
                            19971124
US 1997-66466P
                      Ρ
                            19971124
US 1997-66511P
                      Р
                            19971124
                      Ρ
                            19971124
US 1997-66770P
US 1997-66772P
                      Ρ
                            19971124
US 1997-69425P
                      Ρ
                            19971212
                      P
US 1997-69694P
                            19971216
US 1998-74086P
                      P
                            19980209
US 1998-74092P
                      D
                            19980209
                      Ρ
US 1998-77649P
                            19980311
                      P
                            19980325
US 1998-79294P
                      Ρ
US 1998-81049P
                            19980408
US 1998-82704P
                      Ρ
                            19980422
US 1998-83742P
                      Ρ
                            19980430
                            19980513
                      A1
US 1998-85339P
                      Ρ
US 1998-87106P
                            19980528
US 1998-88026P
                      Р
                            19980604
US 1998-88217P
                      Р
                            19980605
US 1998-88655P
                      Ρ
                            19980609
                      P
                            19980619
US 1998-89947P
                      Ρ
US 1998-91982P
                            19980707
US 1998-94651P
                      A1
                            19980730
                      Р
                            19980810
US 1998-95998P
                      Р
US 1998-97000P
                            19980818
US 1998-97974P
                      Р
                            19980826
                      ₽
US 1998-99601P
                            19980909
US 1998-99803P
                      Р
                            19980910
                      Р
US 1998-99811P
                            19980910
US 1998-99812P
                      Ρ
                            19980910
WO 1998-US18824
                      W
                            19980910
AU 1998-93881
                     Α3
                            19980914
US 1998-100262P
                      Р
                            19980914
WO 1998-US19330
                      W
                            19980916
US 1998-100858P
                      Р
                            19980917
```

```
US 1998-101922P P
                                       19980921
                                       19980924
                                      19981002
      AU 1998-93178
                                A3
      US 1998-104080P
                                 P
                                         19981013
      US 1998-105169P
                                P
                                         19981022
      US 1998-106032P
                               P
                                       19981028
     US 1998-109304P P
US 1998-216021 B1
US 1998-113296P P
US 1998-218517 B1
US 1999-254311 A1
                                       19981120
                                      19981216
                                      19981222
                                         19981222
                                      19990303
      US 1999-125778P
                               P
                                       19990323
                                       19990427
      US 1999-131293P
                               P
                              P
                                       19990615
      US 1999-139695P
                                 Ρ
      US 1999-143048P
                                         19990707
      US 1999-144758P
                                 ₽
                                         19990720
      US 1999-145070P
                                       19990720
                                P
      US 1999-145698P
                               Р
                                       19990726
     US 1999-145698P P 19990728

US 1999-146222P A1 19990728

US 1999-149395P P 19990817

US 1999-380139 A1 19990825

US 1999-151689P P 19990831

US 1999-920594 A 19990908

WO 1999-US20944 W 19990913

US 1999-921090 A 19990915

EP 1999-960644 A3 19991202
                                      19990915
19991202
      EP 1999-960644
                                A3
      US 1999-169495P
                                P
                                         19991207
                               P
      US 1999-170262P
                                       19991209
      US 1999-99309
                               A 19991220
     US 2000-175481P P 20000111
US 2000-441400 A 20000222
WO 2000-US4414 W 20000222
US 2000-187202P P 20000303
      WO 2000-US6471
                               W
                                       20000309
                              P
      US 2000-191007P
                                       20000321
                                      20000418
20000418
20000425
      US 2000-198121P
                              P
      US 2000-198585P
                                Р
      US 2000-199397P
                                 Ρ
                                         20000425
                                       20000425
      US 2000-199550P
                               P
      US 2000-201516P
                               P
                                       20000503
     US 2000-201516P P 20000503

US 2000-204675P P 20000517

US 2000-209832P P 20000605

CA 2000-2380355 A3 20000824

US 2000-690189 A3 20001016

US 2001-816920 B1 20010322

WO 2001-US17443 W 20010530

US 2001-880457 A 20010612

US 2001-904553 A2 20010713

WO 2001-US26626 W 20010823
      WO 2001-US26626
                               W
                                       20010823
      US 2001-2796
                               A 20011115
                                      20011213
20020115
20020403
      WO 2001-US48938
                              W
      US 2002-52586
                                A1
      WO 2002-US10513
                                W
                                         20020403
                           A1
A1
                                      20020415
      US 2002-123155
      US 2002-125166
                                      20020417
                                      20020422
      US 2002-127825
                                A1
      US 2002-145627
                                A1
                                         20020514
      US 2002-145751
                                 Α
                                         20020514
      US 2002-199666
                                 A1
                                         20020718
     US 2004-797366
                                A1
                                      20040309
CLASS
                    CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
                     _ _ _ _
                              ------
 ----<del>-----</del>
 US 2005026832
                     ICM
                              A61K048-00
                     ICS A61K038-18; C12N015-85
```

```
INCL
                        514012000; 514044000; 435455000
US 2005026832
                 NCL
                        514/012.000; 514/044.000; 435/455.000
                 ECLA
WO 9927100
                        C07K014/50
                        435/069.100; 530/350.000; 530/399.000; 536/023.500;
US 2002012961
                 NCL
                        435/320.100; 435/325.000
                 ECLA
                        C07K014/50
                        C07K014/47
WO 2000015666
                 ECLA
                 ECLA
                        C07K014/47
WO 2000015796
                 FTERM
                        4B024/AA01; 4B024/AA11; 4B024/BA02; 4B024/BA03;
JP 2004507201
                        4B024/BA21; 4B024/BA31; 4B024/BA41; 4B024/BA43;
                        4B024/BA63; 4B024/CA04; 4B024/DA02; 4B024/DA06;
                        4B024/DA12; 4B024/EA02; 4B024/EA04; 4B024/GA11;
                        4B024/HA01; 4B024/HA15; 4B064/AG02; 4B064/AG13;
                        4B064/AG20; 4B064/AG27; 4B064/CA02; 4B064/CA06; 4B064/CA10; 4B064/CA19; 4B064/CC24; 4B064/DA01;
                        4B064/DA13; 4B065/AA26X; 4B065/AA72X; 4B065/AA90X;
                        4B065/AA93X; 4B065/AA93Y; 4B065/AB01; 4B065/AC14;
                        4B065/BA02; 4B065/CA24; 4B065/CA25; 4B065/CA44;
                        4B065/CA46; 4H045/AA10; 4H045/AA11; 4H045/AA30;
                        4H045/BA10; 4H045/CA40; 4H045/DA01; 4H045/DA20; 4H045/DA50; 4H045/DA76; 4H045/EA22; 4H045/EA28;
                        4H045/EA51; 4H045/EA54; 4H045/FA74
EP 1466977
                 ECLA
                        C07K016/18
WO 2001005836
                 ECLA
                        C07K014/47
                        514/012.000; 435/069.400; 435/325.000; 536/023.500;
                 NCL
US 2002042367
                        530/399.000; 514/044.000
                 ECLA
                        C07K014/50
US 2002058309
                 NCL
                        530/350.000; 530/324.000
                 ECLA
                        C07K014/47; C07K014/47A1A; C07K014/705R; C07K016/18
                        2G045/AA34; 2G045/AA35; 2G045/BB05; 2G045/BB10;
JP 2004520811
                 FTERM
                        2G045/BB14; 2G045/BB20; 2G045/BB29; 2G045/BB46; 2G045/BB50; 2G045/BB51; 2G045/CB01; 2G045/DA13;
                        2G045/FA29; 2G045/FB02; 2G045/FB03; 2G045/FB06;
                        2G045/FB12; 2G045/GC10; 2G045/GC15; 4B024/AA01;
                        4B024/AA11; 4B024/BA26; 4B024/CA02; 4B024/CA04;
                        4B024/DA02; 4B024/DA06; 4B024/DA12; 4B024/HA17;
                        4B063/QA18; 4B063/QA19; 4B063/QQ43; 4B063/QR55;
                        4B063/QR77; 4B063/QR80; 4B063/QS34; 4B064/AG03;
                        4B064/AG27; 4B064/CA02; 4B064/CA06; 4B064/CA10;
                        4B064/CA19; 4B064/CC24; 4B064/DA01; 4B064/DA13;
                        4B065/AA26; 4B065/AA72; 4B065/AA90; 4B065/AB01;
                        4B065/BA02; 4B065/CA24; 4B065/CA44; 4B065/CA46;
                        4C084/AA17; 4C084/DC50; 4C084/NA14; 4C084/ZA661;
                        4C085/AA14; 4C085/BB11; 4C085/CC02; 4C085/CC21;
                        4C086/AA01; 4C086/AA02; 4C086/EA16; 4C086/MA03;
                        4C086/MA05; 4C086/NA14; 4C086/ZA66; 4H045/AA10;
                        4H045/AA11; 4H045/AA20; 4H045/AA30; 4H045/BA10;
                        4H045/BA41; 4H045/CA40; 4H045/DA02; 4H045/DA76;
                        4H045/EA27; 4H045/FA74
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003108983
                 NCL
                        530/350.000; 536/023.200
                        435/006.000; 435/007.100; 435/069.100; 435/183.000;
US 2003113718
                 NCL
                        435/325.000; 530/350.000; 530/388.100; 514/012.000;
                        536/023.200
                        435/006.000; 435/007.100; 435/069.100; 435/183.000;
US 2003104381
                 NCL
                        435/320.100; 435/325.000; 514/012.000; 530/350.000;
                        536/023.200
                        536/023.100
                 NCL
US 2003130489
US 2003148419
                 NCL
                        530/387.100; 530/350.000; 530/387.900; 530/388.100
                 NCL
                        536/023.100
US 2003187238
                        530/350.000; 435/219.000
                 NCL
US 2003113719
                        530/350.000; 435/006.000; 435/320.100; 435/325.000;
US 2003135025
                 NCL
                        435/183.000; 435/069.100; 514/012.000; 530/388.100;
                        536/023.200; 435/007.100
US 2003152999
                 NCL
                        435/007.100; 435/069.100; 435/183.000; 435/320.100;
                        435/325.000; 530/350.000; 530/388.100; 536/023.200;
```

```
514/012.000
US 2003211569
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                        530/350.000; 536/023.200
US 2003129592
                NCL
                        435/006.000; 435/007.100; 435/069.100; 435/183.000;
                        435/320.100; 435/325.000; 514/012.000; 530/350.000;
                        530/388.100; 536/023.200
US 2003148370
                NCL
                        435/007.100; 435/069.100; 435/183.000; 435/325.000;
                        435/320.100; 514/012.000; 530/350.000; 530/388.100;
                        536/023.200
                        435/006.000; 435/007.100; 435/069.100; 435/183.000;
US 2003152922
                NCL
                        435/320.100; 435/325.000; 530/350.000; 514/012.000;
                        536/023.200
US 2003166051
                NCL
                        530/350.000; 424/192.100; 530/300.000
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003113838
                NCL
                        530/350.000; 536/023.200
                        435/007.100; 435/069.100; 435/183.000; 435/320.100;
US 2003148371
                NCL
                        435/325.000; 530/350.000; 514/012.000; 530/388.100;
                        536/023.200
US 2003190610
                NCL
                        435/325.000; 435/006.000; 435/069.100; 435/252.300;
                        435/320.100; 530/350.000; 536/023.500
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003215904
                NCL
                        530/350.000; 536/023.200
                        435/007.100; 435/069.100; 435/183.000; 435/320.100;
US 2003104469
                NCL
                        435/325.000; 530/350.000; 530/388.100; 536/023.200
US 2003190611
                NCL
                        435/006.000; 435/069.100; 435/183.000; 435/320.100;
                        435/325.000; 530/350.000; 536/023.200
                NCL
US 2004005553
                        435/006.000
US 2002155543
                NCL
                        435/069.400; 435/320.100; 435/325.000; 530/350.000;
                        536/023.500
JP 2004520810
                 FTERM
                        4B024/AA01; 4B024/AA12; 4B024/BA54; 4B024/BA61;
                        4B024/DA02; 4B024/DA06; 4B024/EA02; 4B024/EA04;
                        4B024/GA03; 4B024/GA11; 4B024/HA01; 4B024/HA15;
                        4C076/AA95; 4C076/CC27; 4C076/EE59; 4C076/FF68;
                        4C084/AA02; 4C084/AA07; 4C084/AA13; 4C084/AA17;
                        4C084/BA03; 4C084/MA01; 4C084/NA14; 4C084/ZB262;
                        4C085/AA13; 4C085/AA14; 4C085/AA16; 4C085/BB41;
                        4C085/CC32; 4C085/DD21; 4C085/EE01; 4C085/GG01; 4C086/AA01; 4C086/AA02; 4C086/AA03; 4C086/AA04;
                        4C086/CB22; 4C086/EA16; 4C086/MA01; 4C086/MA04;
                        4C086/NA14; 4C086/ZB26; 4H045/AA11; 4H045/AA30;
                        4H045/BA10; 4H045/CA41; 4H045/DA76; 4H045/EA28;
                        4H045/EA51; 4H045/FA74
US 2003207803
                NCL
                        514/012.000; 435/069.100; 435/183.000; 435/320.100;
                        435/325.000; 530/350.000; 530/388.100; 536/023.200
                ECLA
                        C07K014/47; C07K014/705
US 2003170254
                NCL
                        424/185.100; 435/069.100; 435/320.100; 435/325.000;
                        435/183.000; 530/350.000; 530/388.100; 536/023.200
                ECLA
                        C07K014/705
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003199021
                NCL
                        530/350.000; 536/023.200
                ECLA
                        C07K014/705
US 2003032057
                        435/007.100; 435/069.100; 435/183.000; 435/320.100;
                NCL
                        435/325.000; 530/350.000; 530/388.100; 536/023.200
US 2003032062
                NCL
                        435/007.100; 435/069.100; 435/183.000; 435/320.100;
                        435/325.000; 530/350.000; 530/388.100; 536/023.200
                        435/007.100; 435/069.100; 435/183.000; 435/320.100;
US 2003032063
                NCL
                        435/325.000; 530/350.000; 530/388.100; 536/023.200
                NCL
                        435/007.100; 435/069.100; 435/183.000; 435/320.100;
US 2003040014
                        435/325.000; 530/350.000; 530/388.100; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003044902
                NCL
                        530/350.000; 536/023.200
                        435/007.100; 435/069.100; 435/320.100; 435/325.000;
US 2003044844
                NCL
                        435/183.000; 530/350.000; 530/388.100; 536/023.200
                        2G045/AA40; 2G045/BB03; 2G045/BB20; 2G045/CB01;
JP 2005500030
                FTERM
                        2G045/CB17; 2G045/CB21; 2G045/DA12; 2G045/DA13; 2G045/DA14; 2G045/DA36; 2G045/DA37; 2G045/FB02;
```

```
2G045/FB03; 4B024/AA01; 4B024/AA11; 4B024/BA44;
                       4B024/BA80; 4B024/CA01; 4B024/CA07; 4B024/DA02;
                       4B024/DA05; 4B024/DA12; 4B024/GA11; 4B024/HA11;
                       4B024/HA17; 4B063/QA05; 4B063/QA18; 4B063/QQ79;
                       4B063/QQ91; 4B063/QR77; 4B063/QR84; 4B063/QS15;
                       4B063/QX01; 4B064/AG01; 4B064/CA02; 4B064/CA06;
                       4B064/CA10; 4B064/CC24; 4B064/DA01; 4B065/AA01X;
                       4B065/AA72X; 4B065/AA91X; 4B065/AA93Y; 4B065/AB01;
                       4B065/AC14; 4B065/AC20; 4B065/BA02; 4B065/CA24;
                       4B065/CA25; 4B065/CA44; 4B065/CA46; 4C084/AA02;
                       4C084/BA01; 4C084/BA02; 4C084/BA08; 4C084/BA19;
                       4C084/BA20; 4C084/BA22; 4C084/NA14; 4C084/ZA69;
                       4C084/ZA70; 4C084/ZC21; 4C084/ZC33; 4C084/ZC54;
                       4H045/AA10; 4H045/AA11; 4H045/BA10; 4H045/CA40;
                       4H045/DA76; 4H045/EA20; 4H045/EA50; 4H045/FA74
US 2003148438
                NCL
                       435/069.100; 530/350.000; 530/388.100; 536/023.200;
                       435/183.000; 435/320.100; 435/325.000
                ECLA
                       C07K014/47
                       435/069.100; 530/350.000; 536/023.200; 435/183.000;
US 2003170788
                NCL
                       435/320.100; 435/325.000
                ECLA
                       C07K014/47
US 2003166084
                NCL
                       435/069.100; 530/350.000; 536/023.200; 435/183.000;
                       435/325.000; 435/320.100
                ECLA
                       C07K014/47
US 2003134380
                       435/069.100; 530/350.000; 536/023.200; 435/183.000;
                NCL
                       435/325.000; 435/320.100
                ECLA
                       C07K014/47
                       435/069.100; 530/350.000; 536/023.200; 435/183.000;
US 2004214269
                NCL
                       435/320.100; 435/325.000
                ECLA
                       C07K014/47; C07K014/705
US 2003180875
                NCL
                       435/069.100; 530/350.000; 530/388.100; 536/023.200;
                       435/183.000; 435/320.100; 435/325.000
                       C07K014/47; C07K014/705
                ECLA
US 2003199027
                       435/069.100; 530/350.000; 530/388.100; 536/023.200;
                NCI.
                       435/320.100; 435/325.000; 435/183.000
                ECLA
                       C07K014/47
US 2005074837
                NCL
                       435/069.100; 530/350.000; 530/388.100; 536/023.200;
                       435/183.000; 435/320.100; 435/325.000
                ECLA
                       C07K014/47
US 2003068695
                NCL
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
                       530/350.000; 536/023.200
                       435/069.100; 435/320.100; 435/325.000; 435/183.000;
US 2003068696
                NCL
                       530/350.000; 536/023.200
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003049743
                NCL
                       530/350.000; 536/023.200
US 2003049745
                NCL
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
                       530/350.000; 536/023.200
                       435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200
US 2003064446
                NCL
                NCL
                       435/069.100; 435/183.000; 435/325.000; 435/320.100;
US 2003153037
                       530/350.000; 536/023.200
US 2003059879
                NCL
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
                       530/350.000; 536/023.200
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003064448
                NCL
                       530/350.000; 536/023.200
                NCL
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003049747
                       530/350.000; 536/023.200
US 2003064449
                NCL
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
                       530/350.000; 536/023.200
US 2003063112
                NCL
                       345/700.000
US 2003068705
                NCL
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
                       530/350.000; 536/023.200
US 2003068706
                NCL
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
                       530/350.000; 536/023.200
US 2003071834
                NCL
                       345/700.000
US 2003049749
                NCL
                       435/069.100; 435/183.000; 435/320.100; 435/325.000;
```

```
530/350.000; 536/023.200
US 2003065159
                NCL
                        536/023.100; 435/320.100; 435/471.000; 435/455.000;
                        435/483.000; 435/069.100; 530/350.000; 435/069.700;
                        530/387.100; 435/007.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                NCL
US 2003068710
                        530/350.000; 536/023.200
US 2003104547
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200
US 2003104548
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                NCL
US 2003207398
                        530/350.000; 536/023.200
US 2003215910
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000; 530/388.100; 536/023.200
US 2003180881
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                NCI.
US 2003064462
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003064463
                NCL
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003068756
                NCL
                        530/350.000; 536/023.200
US 2003068759
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                NCL
US 2003068760
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003073183
                NCL
                        530/350.000; 536/023.200
                        435/069.100; 435/320.100; 435/325.000; 435/183.000;
US 2003096359
                NCL
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2004048334
                NCL
                        530/350.000; 536/023.200
                NCL
US 2003068765
                        435/069.100
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003068766
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                NCL
US 2003068769
                        530/350.000; 536/023.200
US 2003068773
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003068774
                NCL
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                NCL
US 2003073184
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
US 2003073185
                NCL
                        530/350.000; 536/023.200
US 2003215912
                NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                        530/350.000; 536/023.200
                        435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200
US 2004048335
                NCL
                NCL
                        536/023.500; 435/069.100; 435/320.100; 435/325.000;
US 2003120056
                        530/350.000; 435/252.300; 514/012.000; 530/388.220
                ECLA
                        A61K047/48R2F; C07K014/515
US 2003144498
                NCL
                        536/023.500; 530/350.000; 435/069.100; 435/320.100;
                        435/325.000; 530/388.220; 424/143.100; 435/007.200
                ECLA
                        A61K047/48R2F; C07K014/515
US 2004249141
                NCL
                        536/023.500; 530/350.000; 435/069.100; 435/320.100;
                        435/325.000
                ECLA
                        A61K047/48R2F; C07K014/515
US 2003224984
                NCL
                        514/012.000; 530/350.000; 530/388.100; 536/023.200;
                        435/069.100; 435/183.000; 435/320.100; 435/325.000
                ECLA
                        C07K014/515; C07K016/22
US 2003199044
                        435/069.520; 435/320.100; 435/325.000; 530/351.000;
                NCL
                        536/023.500; 424/085.200
                NCL
                        435/006.000; 435/069.100; 435/320.100; 435/325.000;
US 2004146908
                        530/399.000; 536/023.500
                NCL
                        424/190.100; 435/069.100; 435/320.100; 435/252.300;
US 2004258710
```

```
536/023.700; 530/351.000
                 ECLA
                        C07K014/52A
                 NCL
                        435/007.100
 US 2005009105
                        435/006.000; 435/069.100; 435/320.100; 435/325.000;
 US 2005019823
                 NCL
                        530/350.000; 530/388.100; 536/023.200; 435/183.000
                 ECLA
 US 2005153396
                 NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
                        530/350.000; 530/388.100; 536/023.200
435/006.000; 435/007.230
                 NCL
 US 2005153348
                        435/006.000; 435/007.100; 435/287.200
 US 2005164266
                 NCL
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
 US 2005136515
                 NCL
                        530/350.000; 530/388.100; 536/023.200
                 ECLA
                        C07K014/47
 US 2005136475
                 NCL
                        435/006.000
                        C07K014/47; C07K014/705
                 ECLA
                        435/069.100; 435/183.000; 435/320.100; 435/325.000;
 US 2005158830
                 NCL
                        530/350.000; 530/388.100; 536/023.200
    The present invention provides protein and cDNA sequences for human
     fibroblast growth factor-19 (FGF-19). Also provided herein are vectors
    and host cells comprising those nucleic acid sequences, chimeric
     polypeptide mols. comprising the polypeptides of the present invention
     fused to heterologous polypeptide sequences, antibodies which bind to the
    polypeptides of the present invention and to methods for producing the
    polypeptides of the present invention. Furthermore, methods of treating
     obesity are provided. It was demonstrated that administration of
     recombinant FGF-19 leads to increase in food uptake and oxygen
     consumption, as well as in leptin release from adipocytes in mice. FGF-19
     transgenic mice had decreased triglycerides and free fatty acids levels,
     and decreased glucose uptake by adipocytes. It was also demonstrated,
     that FGF-19 transgenic mice have improved glucose tolerance and insulin
     sensitivity. It was shown, that the effects of FGF-19 on the expression
    of cholesterol-modifying enzymes is FGFR4 dependent, and FGFR4 is not the
    only functional receptor for FGF-19. Also it was shown, that treatment
    with FGF-19 reverse diet induced insulin resistance.
    protein cDNA sequence human FGF19 obesity insulin resistance treatment;
ST
    human fibroblast growth factor 19 FGFR4 antiobesity antidiabetic
TΨ
    Gene, animal
    RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (ACC2, lipogenesis modulating via; protein and cDNA sequences for human
        fibroblast growth factor-19 (FGF19) and methods of using FGF19 and
        FGFR4 for treatment of obesity and related disorders)
IT
    Gene, animal
    RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (FGFR4, expression modulation; protein and cDNA sequences for human
        fibroblast growth factor-19 (FGF19) and methods of using FGF19 and
        FGFR4 for treatment of obesity and related disorders)
TT
    Gene, animal
    RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (PPARy, lipogenesis modulating via; protein and cDNA sequences
        for human fibroblast growth factor-19 (FGF19) and methods of using
        FGF19 and FGFR4 for treatment of obesity and related disorders)
TΤ
    Drug delivery systems
        (carriers; protein and cDNA sequences for human fibroblast growth
        factor-19 (FGF19) and methods of using FGF19 and FGFR4 for treatment of
        obesity and related disorders)
    Lipids, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (lipogenesis, modulating; protein and cDNA sequences for human
        fibroblast growth factor-19 (FGF19) and methods of using FGF19 and
        FGFR4 for treatment of obesity and related disorders)
IT
    Diabetes mellitus
        (non-insulin-dependent; protein and cDNA sequences for human fibroblast
```

growth factor-19 (FGF19) and methods of using FGF19 and FGFR4 for

```
treatment of obesity and related disorders)
TΤ
    Antidiabetic agents
    Antiobesity agents
     Drug design
    Drug screening
    Gene therapy
     Human
    Molecular cloning
     Obesity
     Protein sequences
     cDNA sequences
        (protein and cDNA sequences for human fibroblast growth factor-19
        (FGF19) and methods of using FGF19 and FGFR4 for treatment of obesity
        and related disorders)
     Gene, animal
TТ
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (scd1, lipogenesis modulating via; protein and cDNA sequences for human
        fibroblast growth factor-19 (FGF19) and methods of using FGF19 and
        FGFR4 for treatment of obesity and related disorders)
     Fibroblast growth factor receptors
TТ
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (type 4, modulators; protein and cDNA sequences for human fibroblast
        growth factor-19 (FGF19) and methods of using FGF19 and FGFR4 for
        treatment of obesity and related disorders)
IT
     Peroxisome proliferator-activated receptors
    RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (\gamma, PPAR\gamma, lipogenesis modulating via; protein and cDNA
        sequences for human fibroblast growth factor-19 (FGF19) and methods of
        using FGF19 and FGFR4 for treatment of obesity and related disorders)
тт
     834926-18-0
    RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (amino acid sequence; protein and cDNA sequences for human fibroblast
        growth factor-19 (FGF19) and methods of using FGF19 and FGFR4 for
        treatment of obesity and related disorders)
    9023-93-2, Acetyl-CoA carboxylase
TТ
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (gene ACC2, lipogenesis modulating via; protein and cDNA sequences for
        human fibroblast growth factor-19 (FGF19) and methods of using FGF19
        and FGFR4 for treatment of obesity and related disorders)
IT
    9014-34-0, Stearoyl-CoA desaturase
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (gene SCD1, lipogenesis modulating via; protein and cDNA sequences for
        human fibroblast growth factor-19 (FGF19) and methods of using FGF19
        and FGFR4 for treatment of obesity and related disorders)
    834926-17-9
    RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (nucleotide sequence; protein and cDNA sequences for human fibroblast
        growth factor-19 (FGF19) and methods of using FGF19 and FGFR4 for
        treatment of obesity and related disorders)
IT
     186287-16-1, GENBANK AA220994
                                    194445-81-3, GENBANK AF007268
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (protein and cDNA sequences for human fibroblast growth factor-19
        (FGF19) and methods of using FGF19 and FGFR4 for treatment of obesity
        and related disorders)
IT
     223121-69-5, Fibroblast growth factor 19
    RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (protein and cDNA sequences for human fibroblast growth factor-19
```

```
(FGF19) and methods of using FGF19 and FGFR4 for treatment of obesity
          and related disorders)
      9004-10-8, Insulin, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study)
 IT
          (resistance, preventing; protein and cDNA sequences for human
          fibroblast growth factor-19 (FGF19) and methods of using FGF19 and
          FGFR4 for treatment of obesity and related disorders)
      834928-80-2 834928-81-3 834928-82-4 834928-83-5
834928-85-7 834928-86-8 834928-87-9 834928-88-0
                                                                  834928-84-6
 IT
                                                                  834928-89-1
                   834928-91-5 834928-92-6
                                                   834928-93-7
                                                                  834928-94-8
      834928-90-4
                    834928-96-0 834928-97-1
      834928-95-9
      RL: PRP (Properties)
          (unclaimed nucleotide sequence; protein and cDNA sequences for human
          fibroblast growth factor-19 (FGF19) and methods of using FGF19 and
          FGFR4 for the treatment of obesity and related disorders)
 L45 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
      2004:101274 HCAPLUS
 AN
      140:158645
 DN
 ED
      Entered STN: 08 Feb 2004
      Genes overexpressed in adipocytes and their use in diagnosis and treatment
 ΤI
      of adipose tissue disorders
      Chada, Kiran; Chouinard, Roland; Ashar, Hena; Sayed, Abu M. D.
 TN
      Hmgene, Inc., USA
 PA
 SO
      PCT Int. Appl., 91 pp.
      CODEN: PIXXD2
 DT
      Patent
      English
- LA
      ICM C12N
 IC
      3-3 (Biochemical Genetics)
 CC
      Section cross-reference(s): 1, 9, 14
 FAN.CNT 2
      PATENT NO.
                           KIND DATE
                                              APPLICATION NO.
                           ----
                                                -----
                                   20040205 WO 2003-US23684
      WO 2004011618
                            A2
                                                                        20030729
 PΙ
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
               LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
               PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
          TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
               FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
               BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                 20020729
 PRAI US 2002-398785P
                            Ρ
      US 2003-478206P
                             Р
                                   20030612
                  CLASS PATENT FAMILY CLASSIFICATION CODES
  PATENT NO.
  _____
  WO 2004011618 ICM
                          C12N
                          C07K014/47; C07K014/72; C12N009/00; C12Q001/68M6
  WO 2004011618 ECLA
      Disclosed is a method of identifying genes that are over-expressed in
      adipose tissue as compared to pre-adipocyte tissue or other tissues,
      comprising performing differential gene expression anal. between the white
      adipose tissue (WAT) or stromal vascular tissue (SVT) from any two
      different mice selected from the group consisting of wild-type, HMGI-C
      -/-, ob/ob, and HMGI-C-/- ob/ob genotype mice. Based on this differential
      gene expression anal. using the Affymetrix GeneChip MG-U74, a number of
      nucleotide sequences are identified whose expression is
      adipocyte-specific. A preferred embodiment of the invention is expression
      of the sFRP-5 (secreted frizzled-related protein 5) and npr-3 (natriuretic
      peptide receptor C) genes. The identified nucleotide sequences and their
      corresponding polypeptides may then be used to prevent
      adipogenesis, to treat diabetes, and to screen for small mols. that can
      modulate or prevent adipogenesis and to treat diabetes
```

```
and obesity.
ST
     gene expression profile adipocyte diagnosis therapy; adipose tissue
     disorder diagnosis therapy gene expression; sequence adipocyte specific
     cDNA protein mouse human
IT
     Syntaxins
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (1B, -like mol.; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
     DNA microarray technology
     Gene expression profiles, animal
        (Affymetrix MG-U74 GeneChip; genes overexpressed in adipocytes and
        their use in diagnosis and treatment of adipose tissue disorders)
TТ
     Proteins
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (Arl4; genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
IT
     Chemokines
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (CCL17 (C-C motif ligand 17); genes overexpressed in adipocytes and
        their use in diagnosis and treatment of adipose tissue disorders)
     Chemokine receptors
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (CCR2; genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
ΙT
     Chemokine receptors
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (CCR6; genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
TT
     Antigens
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (CD1d1; genes overexpressed in adipocytes and their use in diagnosis
        and treatment of adipose tissue disorders)
TΤ
     CD antigens
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (CD53; genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
TT
     Proteins
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (FSP27; genes overexpressed in adipocytes and their use in diagnosis
        and treatment of adipose tissue disorders)
TT
     G protein-coupled receptors
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (GPR127; genes overexpressed in adipocytes and their use in diagnosis
        and treatment of adipose tissue disorders)
IT
    G protein-coupled receptors
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (GPR18; genes overexpressed in adipocytes and their use in diagnosis
        and treatment of adipose tissue disorders)
    G proteins (guanine nucleotide-binding proteins)
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (Gi (adenylate cyclase-inhibiting), α1-subunit; genes
        overexpressed in adipocytes and their use in diagnosis and treatment of
        adipose tissue disorders)
```

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP

G proteins (quanine nucleotide-binding proteins)

ΙT

(Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (G2; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Transcription factors

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (IRF-4 (interferon regulatory factor 4); genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Isg12; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Transcription factors

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (KLF5 (Kruppel-like factor 5); genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (LBH (limb-bud and heart gene); genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Cyclins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (M-3; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Peg1/MEST; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (RELMα (resistin-like mol. α); genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Ras protein p21ras activator 2; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Ras-like GTPase TC10; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (S3-12; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Vap-1; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Adipose tissue

(adipocyte; genes overexpressed in adipocytes and their use in diagnosis and treatment of adipose tissue disorders)

IT Calcium-binding proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

```
(calgranulin B; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
IT
     Proteins
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (copine II; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
     Proteins
IT
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (coronin; genes overexpressed in adipocytes and their use in diagnosis
        and treatment of adipose tissue disorders)
TΤ
     Proteins
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (decay accelerating factor 1; genes overexpressed in adipocytes and
        their use in diagnosis and treatment of adipose tissue disorders)
     Susceptibility (genetic)
TΤ
        (diagnosis of; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
IT
     Transcription factors
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (early B-cell factor; genes overexpressed in adipocytes and their use
        in diagnosis and treatment of adipose tissue disorders)
IT
     Bioassay
        (for agents preventing adipose accumulation; genes
        overexpressed in adipocytes and their use in diagnosis and treatment of
        adipose tissue disorders)
     High throughput screening
IT
        (for modulating agents; genes overexpressed in adipocytes and
        their use in diagnosis and treatment of adipose tissue disorders)
     Agglutinins and Lectins
ΤТ
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (galectin 12; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
     G proteins (guanine nucleotide-binding proteins)
TΤ
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (gene CDC42; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
TT
     Adipose tissue
     Angiogenesis
     Antidiabetic agents
       Antiobesity agents
     Diabetes mellitus
       Drug screening
     Human
    Mus
       Obesity
     Protein sequences
     Rattus
     cDNA sequences
        (genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
IT
    Lactoferrins
     RANTES (chemokine)
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
TΤ
    Diagnosis
        (mol.; genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
    Antibodies and Immunoglobulins
TT
```

```
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (monoclonal; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
ΙT
     Proteins
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (neuronatin; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
IT
     Adipose tissue
        (preadipocyte; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
ΙT
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (retinol-binding, 4; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
TT
     Hedgehog protein
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (sonic; genes overexpressed in adipocytes and their use in diagnosis
        and treatment of adipose tissue disorders)
TΥ
     Proteins
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (thyroid hormone-responsive SPOT14; genes overexpressed in adipocytes
        and their use in diagnosis and treatment of adipose tissue disorders)
IT
     G proteins (guanine nucleotide-binding proteins)
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (\alpha2-subunit; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
ΙT
     78169-47-8, Aspartic proteinase
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (-like protein; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
TT
     9001-03-0
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (II; genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
ΙT
     654291-03-9
                  654291-04-0
                                654291-05-1
                                              654291-06-2
                                                            654291-07-3
                                             654291-11-9
     654291-08-4
                  654291-09-5
                                654291-10-8
                                                            654291-12-0
                               654291-15-3
                                             654291-16-4
                                                            654291-17-5
     654291-13-1
                 654291-14-2
     654291-18-6
                 654291-19-7
                                654291-20-0
                                             654291-21-1
                                                            654291-22-2
                                             654291-26-6
                 654291-24-4
                                654291-25-5
                                                            654291-27-7
     654291-23-3
     654291-28-8
                 654291-29-9
                                654291-30-2
                                              654291-31-3
                                                            654291-32-4
     654291-33-5
                  654291-34-6
                                654291-35-7
                                              654291-36-8
                                                            654291-37-9
                                             654291-41-5
     654291-38-0
                 654291-39-1
                                654291-40-4
                                                            654291-42-6
                                             654291-46-0
     654291-43-7
                 654291-44-8 654291-45-9
                                                            654291-47-1
     654291-48-2
                 654291-49-3
                               654291-50-6
                                             654291-51-7
                                                            654291-52-8
                 654291-54-0
                               654291-55-1
                                             654291-56-2
     654291-53-9
                                                            654291-57-3
                 654291-59-5
                                654291-60-8
                                              654291-61-9
                                                            654291-62-0
     654291-58-4
                                             654291-66-4
                 654291-64-2
                                654291-65-3
     654291-63-1
                                                            654291-67-5
                 654291-69-7
                                654291-70-0
                                              654291-71-1
                                                            654291-72-2
     654291-68-6
     654291-73-3
                  654291-74-4
                                654291-75-5
                                             654291-76-6
                                                            654291-77-7
                  654291-79-9
     654291-78-8
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (amino acid sequence; genes overexpressed in adipocytes and their use
        in diagnosis and treatment of adipose tissue disorders)
IT
     9001-99-4, RNase
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (eosinophil-associated 1; genes overexpressed in adipocytes and their use
```

```
in diagnosis and treatment of adipose tissue disorders)
                                 79747-53-8, Protein tyrosine phosphatase
    9003-99-0, Myeloperoxidase
IT
    90698-32-1, Leukotriene C4 synthase
                                           128028-50-2, Proteinase 3
    146480-36-6, Matrix metalloproteinase 9
                                               216864-09-4, SYnuclein \gamma
    503473-02-7, Nitric oxide synthase 3
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
                   654288-31-0
ΙT
    654288-30-9
                                 654288-32-1
                                               654288-33-2
                                                             654288-34-3
                   654288-36-5
                                 654288-37-6
                                               654288-38-7
                                                             654288-39-8
    654288-35-4
    654288-40-1
                  654288-41-2
                                 654288-42-3
                                               654288-43-4
                                                             654288-44-5
                   654288-46-7
                                 654288-47-8
                                               654288-48-9
                                                             654288-49-0
    654288-45-6
                                               654288-53-6
                                                             654288-54-7
    654288-50-3
                   654288-51-4
                                 654288-52-5
                                               654288-58-1
                                                             654288-59-2
                   654288-56-9
                                 654288-57-0
    654288-55-8
    654288-60-5
                   654288-61-6
                                 654288-62-7
                                               654288-63-8
                                                             654288-64-9
                                               654288-68-3
                                                             654288-69-4
                                 654288-67-2
    654288-65-0
                   654288-66-1
                                 654288-72-9
                                               654288-73-0
                                                              654288-74-1
    654288-70-7
                   654288-71-8
                                                             654288-79-6
    654288-75-2
                   654288-76-3
                                 654288-77-4
                                               654288-78-5
                                 654288-82-1
                                               654288-83-2
                                                             654288-84-3
                   654288-81-0
    654288-80-9
                                 654288-87-6
                                               654288-88-7
                                                              654288-89-8
    654288-85-4
                   654288-86-5
                                 654288-92-3
                                                             654288-94-5
    654288-90-1
                   654288-91-2
                                               654288-93-4
    654288-95-6
                  654288-96-7
                                 654288-97-8
                                              654288-98-9
                                                              654288-99-0
                   654289-01-7
                                 654289-02-8
                                               654289-03-9
                                                              654289-04-0
    654289-00-6
                   654289-06-2
                                 654289-07-3
                                               654289-08-4
                                                              654289-09-5
    654289-05-1
                                                              654289-14-2
    654289-10-8
                   654289-11-9
                                 654289-12-0
                                               654289-13-1
    654289-15-3 654289-16-4 654289-17-5 654289-18-6
                                              654289-22-2
                                                              654289-23-3
                  654289-20-0
                                 654289-21-1
    654289-19-7
                                 654289-26-6
                                               654289-27-7
                                                              654289-28-8
    654289-24-4
                  654289-25-5
    654289-29-9
                   654289-30-2
                                 654289-31-3
                                               654289-32-4
                                                             654289-33-5
                                 654289-36-8
                                               654289-37-9
                                                             654289-38-0
                  654289-35-7
    654289-34-6
    654289-39-1
                   654289-40-4
                                 654289-41-5
                                               654289-42-6
                                                             654289-43-7
                                 654289-46-0
                                               654289-47-1
                                                             654289-48-2
    654289-44-8
                   654289-45-9
                                 654289-51-7
                                               654289-52-8
                                                             654289-53-9
    654289-49-3
                  654289-50-6
                                 654289-56-2
                                              654289-57-3
                                                             654289-58-4
    654289-54-0
                  654289-55-1
                                                             654289-63-1
                                 654289-61-9
                                               654289-62-0
    654289-59-5
                  654289-60-8
    654289-64-2
                   654289-65-3
                                 654289-66-4
                                               654289-67-5
                                                              654289-68-6
    654289-69-7
                   654289-70-0
                                 654289-71-1
                                               654289-72-2
                                                              654289-73-3
                                               654289-77-7
                                                             654289-78-8
    654289-74-4
                   654289-75-5
                                 654289-76-6
    654289-79-9
                  654289-80-2
                                 654289-81-3
                                               654289-82-4
                                                              654289-83-5
    654289-84-6
                   654289-85-7
                                 654289-86-8
                                               654289-87-9
                                                             654289-88-0
                   654289-90-4
                                               654289-92-6
                                                             654289-93-7
    654289-89-1
                                 654289-91-5
                                               654289-97-1
                                                              654289-98-2
    654289-94-8
                   654289-95-9
                                 654289-96-0
                                                             654290-03-6
                                               654290-02-5
     654289-99-3
                   654290-00-3
                                 654290-01-4
                                 654290-06-9
                                               654290-07-0
                                                             654290-08-1
    654290-04-7
                  654290-05-8
    654290-09-2
                  654290-10-5
                                 654290-11-6
                                              654290-12-7
                                                             654290-13-8
                                               654290-17-2
                                                             654290-18-3
                   654290-15-0
                                 654290-16-1
    654290-14-9
                                                              654290-23-0
    654290-19-4
                   654290-20-7
                                 654290-21-8
                                               654290-22-9
    654290-24-1
                   654290-25-2
                                 654290-26-3
                                               654290-27-4
                                                             654290-28-5
                  654290-30-9
                                 654290-31-0
                                               654290-32-1
                                                             654290-33-2
    654290-29-6
                  654290-35-4
                                               654290-37-6
                                                              654290-38-7
    654290-34-3
                                 654290-36-5
                                                             654290-43-4
    654290-39-8
                   654290-40-1
                                 654290-41-2
                                               654290-42-3
                   654290-45-6
                                 654290-46-7
                                               654290-47-8
                                                             654290-48-9
    654290-44-5
                   654290-50-3
                                 654290-51-4
                                               654290-52-5
                                                             654290-53-6
    654290-49-0
                   654290-55-8
                                 654290-56-9
                                               654290-57-0
    654290-54-7
                                                             654290-58-1
                   654290-60-5
                                 654290-61-6
                                               654290-62-7
                                                              654290-63-8
    654290-59-2
    RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (nucleotide sequence; genes overexpressed in adipocytes and their use
        in diagnosis and treatment of adipose tissue disorders)
                  654290-65-0
                                               654290-67-2
                                                             654290-68-3
ТТ
    654290-64-9
                                 654290-66-1
                                 654290-71-8
                                               654290-72-9
                                                              654290-73-0
    654290-69-4
                   654290-70-7
                                               654290-77-4
     654290-74-1
                   654290-75-2
                                 654290-76-3
                                                              654290-78-5
    654290-79-6
                                 654290-81-0
                                               654290-82-1
                                                              654290-83-2
                   654290-80-9
     654290-84-3
                   654290-85-4
                                 654290-86-5
                                               654290-87-6
                                                              654290-88-7
                   654290-90-1
                                               654290-92-3
                                                             654290-93-4
    654290-89-8
                                 654290-91-2
```

```
654290-94-5 654290-95-6
                               654290-96-7 654290-97-8
                                                            654290-98-9
     654290-99-0 654291-00-6 654291-01-7 654291-02-8 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (nucleotide sequence; genes overexpressed in adipocytes and their use
        in diagnosis and treatment of adipose tissue disorders)
IT
     9016-18-6, Carboxylesterase
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (p62/CE; genes overexpressed in adipocytes and their use in diagnosis
        and treatment of adipose tissue disorders)
     140879-24-9, Proteasome
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (subunit β5; genes overexpressed in adipocytes and their use in
        diagnosis and treatment of adipose tissue disorders)
     654306-82-8 654306-83-9 654306-84-0 654306-85-1
ΤT
     654306-87-3
                  654306-88-4 654306-89-5
                                             654306-90-8 654306-91-9
     654306-92-0
     RL: PRP (Properties)
        (unclaimed protein sequence; genes overexpressed in adipocytes and
        their use in diagnosis and treatment of adipose tissue disorders)
ΙT
     9001-03-0
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (II; genes overexpressed in adipocytes and their use in diagnosis and
        treatment of adipose tissue disorders)
     9001-03-0 HCAPLUS
RN
     Dehydratase, carbonate (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     654289-16-4 654289-17-5
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (nucleotide sequence; genes overexpressed in adipocytes and their use
        in diagnosis and treatment of adipose tissue disorders)
     654289-16-4 HCAPLUS
RN
     DNA (rat clone WO2004011618-SEQID-89 carbonate dehydratase isoenzyme II
CN
     cDNA plus flanks) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     654289-17-5 HCAPLUS
RN
     DNA (rat clone WO2004011618-SEQID-90 carbonate dehydratase isoenzyme II
CN
     cDNA plus flanks) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
L45 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
     2003:511950 HCAPLUS
AN
DN
     139:79155
    Entered STN: 04 Jul 2003
ED
     Carbohydrate response element-binding protein and uses thereof
TΙ
    Uyeda, Kosaku
IN
PA
     USA
    U.S. Pat. Appl. Publ., 64 pp.
SO
     CODEN: USXXCO
DТ
     Patent
    English
LΆ
     ICM A61K031-00
     ICS C12Q001-68
INCL 435006000; 514001000
     1-10 (Pharmacology)
     Section cross-reference(s): 3
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                           APPLICATION NO.
                                                                  DATE
                                -----
     -----
                         ----
                                            -----
```

```
PI US 2003124590
                          A1
                                20030703
                                            US 2002-272206
                                                                    20021016
PRAI US 2001-329834P
                                20011016
CLASS
                 CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
US 2003124590
                 ICM
                        A61K031-00
                 ICS
                        C12Q001-68
                        435006000; 514001000
                 INCL
                        435/006.000; 514/001.000
US 2003124590
                 NCL
                 ECLA
                        A61K031/00
     The present invention relates to the field of transcriptional regulation.
AB
    More specifically, it relates to a novel transcription factor,
     Carbohydrate Response Element-Binding Protein (ChREBP). ChREBP is associated
     with carbohydrate metabolism and the conversion of dietary excess carbohydrate
     to body fat. The present invention relates to activation and inhibition
     of ChREBP transcriptional activity and uses thereof.
     carbohydrate response element binding protein lipogenesis
ST
ΙT
     Transcription factors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (ChREBP (carbohydrate response element-binding protein); carbohydrate
        response element-binding protein for antiobesity and antidiabetic use)
IT
     Cell nucleus
        (ChREBP localization into; carbohydrate response element-binding
        protein for antiobesity and antidiabetic use)
IT
     Proteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (DNA-binding, modulators of; carbohydrate response element-binding
        protein for antiobesity and antidiabetic use)
TТ
     Signal peptides
        (NLS (nuclear localization signal); carbohydrate response
        element-binding protein for antiobesity and antidiabetic use)
     Antidiabetic agents
    Antiobesity agents
    Blood vessel, disease
     Cardiovascular agents
     Diabetes mellitus
     Drug screening
     Human
    Liver
    Metabolic pathways
     Molecular cloning
     Obesity
        (carbohydrate response element-binding protein for antiobesity and
        antidiabetic use)
IT
    Enzymes, biological studies
     Hormones, animal, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (carbohydrate response element-binding protein for antiobesity and
        antidiabetic use)
IT
    Genetic element
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (carbohydrate response element; carbohydrate response element-binding
        protein for antiobesity and antidiabetic use)
IT
    Diet
        (high-carbohydrate; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
IT
        (inhibition of; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
     Lipids, biological studies
IT
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (lipogenesis, inhibition of; carbohydrate response element-binding
        protein for antiobesity and antidiabetic use)
IT
     Phosphorylation, biological
        (modulators of; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
```

```
ΙT
     Carbohydrates, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (response element; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
IΤ
     Liver
        (toxicity; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
     9004-10-8, Insulin, biological studies
                                               9023-93-2, Acetyl coa carboxylase
IT
     9027-95-6, Atp citrate lyase 9045-77-6, Fatty acid synthase RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (DNA encoding; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
     9001-59-6, Pyruvate kinase
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (L-type, DNA encoding; carbohydrate response element-binding protein
        for antiobesity and antidiabetic use)
     552442-96-3 552442-97-4 552442-98-5
ፐጥ
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (amino acid sequence; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
TТ
     362-74-3, Dibutyryl-camp
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (carbohydrate response element-binding protein for antiobesity and
        antidiabetic use)
ΙT
     9013-05-2, Phosphatase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
IT
     9014-00-0, Luciferase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (marker gene encoding; carbohydrate response element-binding protein
        for antiobesity and antidiabetic use)
     50-99-7, Glucose, biological studies
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (metabolism of; carbohydrate response element-binding protein for
        antiobesity and antidiabetic use)
                                 552444-27-6
IT
     552444-25-4
                  552444-26-5
                                                552444-28-7
                                                              552444-29-8
                  552444-31-2
                                                552444-33-4
     552444-30-1
                                 552444-32-3
                                                              552444-34-5
     552444-35-6
                  552444-36-7
                                 552444-37-8
                                                552444-38-9
                                                              552444-39-0
                  552444-41-4
     552444-40-3
                                 552444-42-5
                                               552444-43-6
                                                              552444-44-7
     552444-45-8
                   552444-46-9
                                 552444-47-0
                                                552444-48-1
                                                              552444-49-2
     552444-50-5
                  552444-51-6
                                 552444-52-7
                                               552444-53-8
                                                              552444-54-9
     552444-55-0
                  552444-56-1
                                 552444-57-2
                                               552444-58-3
                                                              552444-59-4
     552444-60-7
                  552444-61-8
                                 552444-62-9
                                               552444-63-0
                                                              552444-64-1
     552444-65-2
                  552444-66-3
                                 552444-67-4
                                               552444-68-5
                                                              552444-69-6
                   552444-71-0
                                 552444-72-1
                                                552444-73-2
     552444-70-9
                                                              552444-74-3
                                                552444-78-7
     552444-75-4
                   552444-76-5
                                 552444-77-6
                                                              552444-79-8
                                                              552444-84-5
     552444-80-1
                  552444-81-2
                                 552444-82-3
                                              552444-83-4
                   552444-86-7
     552444-85-6
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; carbohydrate response element-binding
        protein and uses thereof)
TТ
                   552315-06-7
                                552315-07-8
                                              552315-08-9
     125911-68-4
     RL: PRP (Properties)
        (unclaimed sequence; carbohydrate response element-binding protein and
        uses thereof)
L45 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
     2003:511096 HCAPLUS
AN
     139:81326
DN
ED
     Entered STN: 04 Jul 2003
     Human and mouse diacylglycerol acyltransferase 2 sequence homologs, their
     sequences, recombinant production, and use as modulators in treatment of
     disorders such as obesity
```

```
Gimeno, Ruth E.; Wu, Zhidan; Kapeller-Libermann, Rosana; Hubbard, Brian K.
IN
PA
    Millennium Pharmaceuticals, Inc., USA
     PCT Int. Appl., 154 pp.
SO
     CODEN: PIXXD2
DT
     Patent
    English
LΑ
IC
     ICM A61K
     7-5 (Enzymes)
CC
     Section cross-reference(s): 1, 3, 13, 14
FAN.CNT 1
     PATENT NO.
                         KIND DATE
                                             APPLICATION NO.
                                                                     DATE
                         ----
                        A2
                                 20030703
                                           WO 2002-US40974
                                                                     20021219
     WO 2003053363
                                20040429
                          A3
     WO 2003053363
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
         UG, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2003170691
                          A1
                                 20030911 US 2002-324618
                                                                     20021219
                          A2
                                 20040915
                                             EP 2002-805653
                                                                     20021219
     EP 1455815
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
PRAI US 2001-341947P P
                                 20011219
                          Р
                                 20020919
     US 2002-411859P
    WO 2002-US40974
                          W
                                 20021219
CLASS
                 CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 WO 2003053363 ICM
                        A61K
                ECLA
                        C12N009/10C1A
 WO 2003053363
                 NCL 435/006.000; 435/069.100; 435/193.000; 435/320.100;
 US 2003170691
                         435/325.000; 536/023.200
                        C12N009/10C1A
                 ECLA
     The invention provides various cDNA mols. encoding human and mouse
     diacylglycerol acyltransferase 2 (DGAT2) sequence homologs. The human
     cDNA mols. are designated 60489, 112041, 112037, 58765, 58765short,
     112023, 112024 and hDC2, while the mouse cDNA mols. are designated m86606,
     m5875, m112023, and mDC2. The invention also provides a vector containing
     said cDNA mols., and a host cell transformed with said vector for
     recombinant DGAT2 sequence homolog protein production The invention further
     provides said DGAT2 sequence homolog polypeptides, and antibodies, and/or
     fusion proteins thereof. Still further, the invention provides a method
     for: (a) identifying a compound capable of modulating an adipocyte activity
     using said DGAT2 family member cDNA mols. or polypeptides, and use of
     identified modulator; (b) determining acyltransferase activity of a polypeptide
     (such as DGAT2 sequence homologs) utilizing labeled substrates; and (c)
     identifying a compound (modulator) capable of treating a disorder
     characterized by aberrant DGAT2 family member nucleic acid expression or
     activity (such as obesity), wherein said modulator is organic small mol., and
     anti-DGAT2 antibody, or one of the disclosed DGAT2 sequence homolog
     polypeptides. Finally, the invention provides the cDNA and amino acid
     sequences of said human and mouse DGAT2 sequence homologs. The invention
     discussed that the DGAT2 sequence homologs can be used in screening
     assays, and as therapeutic agents for controlling one or more disorders
     associated with adipocyte differentiation and metabolism, and metabolic
     disorders. The invention is based, at least in part, on the discovery
     that the DGAT2 sequence homolog cDNAs and polypeptides were expressed at
     high levels in adipose, liver and small intestine, colon, and kidney, and
     were regulated during conditions which affect differentiation and metabolism
     of adipocytes, and are downregulated in genetic animal models of obesity.
```

ST cDNA diacylglycerol acyltransferase 2 sequence homolog human mouse; protein sequence diacylglycerol acyltransferase 2 homolog human mouse; recombinant prodn diacylglycerol acyltransferase 2 sequence homolog; therapy obesity aberrant lipogenesis anti DGAT2 antibody small mol; obesity aberrant lipogenesis therapy DGAT2 sequence homolog; triglyceride aberrant synthesis treatment DGAT2 sequence homolog

IT Lipids, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (aberrant generation of; method for identifying compound capable of treating disorder associated with aberrant DGAT2 family member, wherein said disorder is associated with obesity, aberrant lipogenesis or triglyceride synthesis)

IT Glycerides, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (aberrant synthesis of; method for identifying compound capable of treating disorder associated with aberrant DGAT2 family member, wherein said disorder is associated with obesity, aberrant lipogenesis or triglyceride synthesis)

IT Adipose tissue

(adipocyte; modulating adipocyte activity (such as diacylglyceroltransferase activity, hyperplastic growth, hypertropic growth or lipogenesis) using DGAT2 sequence homologs, anti-DGAT2 antibodies or organic small mol.)

IT Antibodies and Immunoglobulins

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antibodies specific for human and mouse diacylglycerol acyltransferase 2 sequence homologs, and use of anti-DGAT2 antibodies as modulator for treating individual suffering with obesity, aberrant lipogenesis or triglyceride synthesis)

IT Diglycerides

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(as substrate, labeled with biotin or radioactivity; method use for
determining acyltransferase activity of human and mouse DGAT2 sequence
homologs using labeled fatty acyl CoA and acylglyceride substrates)

IT Molecular cloning

(cDNA mols. encoding human and mouse diacylglycerol acyltransferase 2 (DGAT2) sequence homologs, and plasmid vectors containing said cDNAs for use in recombinant protein production)

IT cDNA sequences

(cDNA mols. encoding human and mouse diacylglycerol acyltransferase 2 sequence homologs, their sequences, and biol. uses)

T Fusion proteins (chimeric proteins)

RL: BSU (Biological study, unclassified); BIOL (Biological study) (human and mouse diacylglycerol acyltransferase 2 sequence homologs, and fusion proteins comprising said homologs)

IT Human

(human diacylglycerol acyltransferase 2 sequence homologs, their sequences, recombinant production, and use as modulators in treatment of disorders such as obesity)

IT Lipids, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (metabolic disorders; method for identifying compound capable of treating disorder associated with aberrant DGAT2 family member, wherein said disorder is associated with obesity, aberrant lipogenesis or triglyceride synthesis)

IT Antiobesity agents

Drug screening

Obesity

(method for identifying compound capable of treating disorder associated with aberrant DGAT2 family member, wherein said disorder is associated with obesity, aberrant lipogenesis or triglyceride synthesis)

IT Protein sequences

(mouse and human diacylglycerol acyltransferase 2 sequence homologs, their sequences, recombinant production, and use as modulators in treatment of disorders such as obesity)

```
IT
     Mus musculus
        (mouse diacylglycerol acyltransferase 2 sequence homologs, their
        sequences, recombinant production, and use as modulators in treatment of
        disorders such as obesity)
     9029-98-5P, Diacylglycerol acyltransferase
TΤ
     RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (2, sequence homolog; human and mouse diacylglycerol acyltransferase 2
        sequence homologs, their sequences, recombinant production, and use as
        modulators of adipocyte activity and in treatment of disorders such as
        obesity)
ΙT
     552443-59-1P
                    552443-61-5P
                                   552443-63-7P
                                                   552443-65-9P
                                                                   552443-68-2P
                   552443-72-8P
                                  552443-74-0P
                                                   552443-76-2P
     552443-70-6P
     RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (amino acid sequence; human and mouse diacylglycerol acyltransferase 2
        sequence homologs, their sequences, recombinant production, and use as
        modulators of adipocyte activity and in treatment of disorders such as
        obesity)
     552443-79-5P
IT
     RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (amino acid sequence; human and mouse diacylglycerol acyltransferase 2
        sequence homologs, their uses and use as modulators in treatment of
        disorders such as obesity)
                   552443-81-9
     RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (amino acid sequence; human and mouse diacylglycerol acyltransferase 2
        sequence homologs, their uses as modulators in treatment of disorders
        such as obesity)
ΙT
     552443-29-5
     RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (amino acid sequence; of human diacylglycerol acyltransferase 2, and
        its use as a modulator in treatment of disorders such as obesity)
     85-61-0D, Coenzyme A, fatty acyl derivs., labeled with biotin or
     radioactivity
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (as substrate; method use for determining acyltransferase activity of human
        and mouse DGAT2 sequence homologs using labeled fatty acyl CoA and
        acylglyceride substrates)
IT
     9055-17-8, Monoacylglycerol acyltransferase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (method use for determining acyltransferase activity of human and mouse DGAT2
        sequence homologs using labeled fatty acyl CoA and acylglyceride
        substrates)
     552443-57-9
                   552443-58-0
                                  552443-60-4
                                                552443-62-6
                                                               552443-64-8
IT
                                                552443-71-7
                                                               552443-73-9
     552443-66-0
                   552443-67-1
                                  552443-69-3
     552443-75-1
                   552443-77-3
                                  552443-78-4
     RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological
     study); USES (Uses).
        (nucleotide sequence; cDNA mols. encoding human and mouse
        diacylglycerol acyltransferase 2 sequence homologs, their sequences,
        and biol. uses)
IT
     552444-94-7
                   552444-95-8
                                  552444-96-9
                                                552444-97-0
                                                               552444-98-1
                   552445-00-8
                                  552445-01-9
                                                552445-02-0
                                                               552445-03-1
     552444-99-2
     552445-04-2
                   552445-05-3
                                  552445-06-4
                                                552445-07-5
                                                               552445-08-6
     552445-09-7
                   552445-10-0
                                  552445-11-1
                                                552445-12-2
                                                               552445-13-3
                   552445-15-5
     552445-14-4
                                  552445-16-6
                                                552445-17-7
                                                               552445-18-8
     552445-19-9
                   552445-20-2
                                  552445-21-3
                                                552445-22-4
                                                               552445-23-5
     552445-24-6
                   552445-25-7
                                  552445-26-8
                                                552445-27-9
                                                               552445-28-0
                   552445-30-4
                                  552445-31-5
                                                552445-32-6
```

552445-29-1

```
RL: PRP (Properties)
        (unclaimed nucleotide sequence; human and mouse diacylglycerol
       acyltransferase 2 sequence homologs, their sequences, recombinant
       production, and use as modulators in treatment of disorders such as
       obesity)
L45 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
    2002:736796 HCAPLUS
AN
DN
    137:257694
ED
    Entered STN: 27 Sep 2002
    Short peptides from the 'A-region' of protein kinases which selectively
TI
    modulate protein kinase activity
    Ben-Sasson, Shmuel
IN
    Children's Medical Center Corporation, USA
PA
    U.S. Pat. Appl. Publ., 79 pp., Cont.-in-part of U.S. Ser. No. 734,520.
SO
    CODEN: USXXCO
    Patent
DT
LA
    English
    ICM C12Q001-68
    ICS C12N009-12; A61K038-16; C12P021-02
INCL 435069100
    1-12 (Pharmacology)
    Section cross-reference(s): 7
FAN.CNT 2
                       KIND DATE
                                         APPLICATION NO.
    PATENT NO.
                                                                DATE
                               -----
                        ----
                                          _____
                                                                 -----
    US 2002137141
                        A1
                               20020926
                                          US 2001-12034
                                                                 20011211
                               20020822
                                        US 2000-734520
                                                                 20001211
    US 2002115173
                        A1
PRAI US 2000-734520
                        A2
                               20001211
CLASS
 PATENT NO.
               CLASS PATENT FAMILY CLASSIFICATION CODES
                       _____
                ----
                       C120001-68
 US 2002137141
                T CM
                ICS
                       C12N009-12; A61K038-16; C12P021-02
                INCL
                       435069100
                       435/069.100; 514/012.000; 435/006.000; 435/194.000
 US 2002137141
               NCL
                ECLA
                       C12N009/12B1
                       435/194.000; 435/070.210; 435/007.920
 US 2002115173
                NCL
                       C12N009/12B1
                ECLA
OS
    MARPAT 137:257694
    The invention provides compds. comprising, within short sequences from a
ΑB
    specific region of the kinase, that can modulate kinase-associated signal
     transduction. Methods for identification of candidate compds. are
    disclosed, as are disease treatment methods.
    protein kinase peptide screening signal transduction therapeutic
ST
        (A region; peptides from A-region of protein kinases which selectively
       modulate protein kinase activity)
IT
    Adipose tissue
        (adipocyte, lipogenesis; peptides from A-region of protein kinases
       which selectively modulate protein kinase activity)
     Lipids, biological studies
IT
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (adipose cell lipogenesis; peptides from A-region of protein kinases
       which selectively modulate protein kinase activity)
IT
    Antiarteriosclerotics
        (antiatherosclerotics; peptides from A-region of protein kinases which
        selectively modulate protein kinase activity)
IT
    Nervous system, disease
        (central; peptides from A-region of protein kinases which selectively
       modulate protein kinase activity)
IT
    Nervous system, disease
        (degeneration; peptides from A-region of protein kinases which
       selectively modulate protein kinase activity)
TT
     Immunity
        (disorder; peptides from A-region of protein kinases which selectively
```

```
modulate protein kinase activity)
ΙT
     Biological transport
        (drug; peptides from A-region of protein kinases which selectively
        modulate protein kinase activity)
IT
     Blood vessel
        (endothelium, protein kinase; peptides from A-region of protein kinases
        which selectively modulate protein kinase activity)
IT
     Blood
        (qlucose level; peptides from A-region of protein kinases which
        selectively modulate protein kinase activity)
IT
     Bone
        (healing; peptides from A-region of protein kinases which selectively
        modulate protein kinase activity)
ΤТ
     Neoplasm
        (metastasis; peptides from A-region of protein kinases which
        selectively modulate protein kinase activity)
TT
     Nervous system
        (neural crest, neural crest cell emigration; peptides from A-region of
        protein kinases which selectively modulate protein kinase activity)
     Axon
IT
        (outgrowth; peptides from A-region of protein kinases which selectively
        modulate protein kinase activity)
IΤ
     Adipose tissue
     Alopecia
     Anti-inflammatory agents
     Antidiabetic agents
     Antiobesity agents
     Antitumor agents
     Appetite
     Atherosclerosis
     Autoimmune disease
     Body weight
     Cardiovascular agents
     Cardiovascular system, disease
     Cell proliferation
     Diabetes mellitus
     Drug delivery systems
     Drug screening
     Fibrosis
     Infection
     Inflammation
     Metabolism
     Neoplasm
     Nervous system agents
     Obesity
     Osteoporosis
     Peptidomimetics
     Secretion (process)
     Signal transduction, biological
     Skin, disease
        (peptides from A-region of protein kinases which selectively modulate
        protein kinase activity)
TT
     Cytokines
     Hormones, animal, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (peptides from A-region of protein kinases which selectively modulate
        protein kinase activity)
TТ
     Peptides, biological studies
     RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
     THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (peptides from A-region of protein kinases which selectively modulate
        protein kinase activity)
TT
     Phosphorylation, biological
        (protein; peptides from A-region of protein kinases which selectively
        modulate protein kinase activity)
TТ
     Animal tissue
```

```
(remodeling; peptides from A-region of protein kinases which
       selectively modulate protein kinase activity)
TT
    Artery, disease
        (restenosis; peptides from A-region of protein kinases which
       selectively modulate protein kinase activity)
    Neurotrophic factor receptors
IT
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (ret; peptides from A-region of protein kinases which selectively
       modulate protein kinase activity)
    Wound
TТ
        (scar formation; peptides from A-region of protein kinases which
       selectively modulate protein kinase activity)
    Animal cell
IT
        (shape and elongation; peptides from A-region of protein kinases which
       selectively modulate protein kinase activity)
ΙT
    Biological transport
        (uptake, glucose; peptides from A-region of protein kinases which
       selectively modulate protein kinase activity)
IT
    Endothelium
        (vascular, protein kinase; peptides from A-region of protein kinases
       which selectively modulate protein kinase activity)
    Amino acids, biological studies
TТ
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (D-; peptides from A-region of protein kinases which selectively
       modulate protein kinase activity)
    142008-29-5, Protein kinase A
ΤТ
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (Ca; peptides from A-region of protein kinases which selectively
       modulate protein kinase activity)
    438582-72-0
                  438582-73-1
                                438582-74-2
                                              438582-75-3
                                                            438582-76-4
                                              438582-81-1
                                                           438582-82-2
    438582-77-5
                  438582-79-7
                                438582-80-0
    438582-83-3
                  438582-84-4
                                438582-85-5
    RL: PRP (Properties)
        (Unclaimed; short peptides from the 'A-region' of protein kinases which
       selectively modulate protein kinase activity)
ΙT
    56-41-7, L-Alanine, biological studies
                                            79079-06-4, EGF receptor protein
            88201-45-0, Insulin receptor kinase 114051-78-4, LCK kinase
    137010-36-7, NGF receptor tyrosine kinase 137632-06-5, CSK protein
            137632-07-6, ERK1 kinase 140208-17-9, LYN kinase
                                                                141349-89-5,
    SRC kinase 145539-86-2, HCK kinase 146279-92-7, Gene ret receptor
    protein tyrosine kinase 148640-14-6, Protein kinase B 153190-61-5,
    TYK2 protein kinase 161384-16-3, JAK kinase 162032-63-5, Discoidin
                                     165245-96-5, p38 MAP kinase
    domain receptor tyrosine kinase
    166433-56-3, ALK receptor tyrosine kinase
                                               199015-85-5, Activin
    receptor-like kinase 372092-80-3, Protein kinase
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
       (peptides from A-region of protein kinases which selectively modulate
       protein kinase activity)
    438042-66-1 438042-66-1D, variant derivs.
                                                  438042-67-2
                                                               438042-67-2D,
    variant derivs. 438042-69-4 438042-69-4D, variant derivs.
    438042-70-7 438042-70-7D, variant derivs. 438042-71-8
                                                              438042-71-8D,
    variant derivs. 438042-72-9 438042-72-9D, variant derivs.
    438042-73-0 438042-73-0D, variant derivs.
                                                 438042-74-1
                                                              438042-74-1D,
    variant derivs. 438042-75-2 438042-75-2D, variant derivs.
    438042-76-3 438042-76-3D, variant derivs.
                                                 438042-77-4
                                                              438042-77-4D,
    variant derivs. 438042-78-5 438042-78-5D, variant derivs.
    438042-79-6 438042-79-6D, variant derivs.
                                                 438042-80-9
                                                              438042-80-9D,
                                  438042-81-0D, variant derivs.
    variant derivs. 438042-81-0
    438042-82-1 438042-82-1D, variant derivs.
                                                 438042-83-2
                                                              438042-83-2D,
                     438042-84-3 438042-84-3D, variant derivs.
    variant derivs.
    438042-85-4 438042-85-4D, variant derivs.
                                                 438042-86-5
                                                              438042-86-5D,
    variant derivs.
                     438042-87-6 438042-87-6D, variant derivs.
    438042-88-7 438042-88-7D, variant derivs.
                                                 438042-89-8
                                                               438042-89-8D,
    variant derivs. 438042-90-1 438042-90-1D, variant derivs.
    438042-91-2 438042-91-2D, variant derivs.
                                                 438042-92-3
                                                              438042-92-3D,
    variant derivs. 438042-93-4 438042-93-4D, variant derivs.
```

```
438042-96-7
     438042-95-6
                438042-95-6D, variant derivs.
                                                             438042-96-7D,
     variant derivs.
                    438042-97-8
                                   438042-97-8D, variant derivs.
                                                 438042-99-0 438042-99-0D,
     438042-98-9 438042-98-9D, variant derivs.
     variant derivs. 438043-00-6 438043-00-6D, variant derivs.
     438043-01-7 438043-01-7D, variant derivs.
                                                438043-02-8 438043-02-8D,
     variant derivs. 438043-03-9 438043-03-9D, variant derivs.
     438043-05-1 438043-05-1D, variant derivs.
                                                 438043-06-2
                                                              438043-06-2D,
     variant derivs. 438043-07-3 438043-07-3D, variant derivs.
     438043-08-4 438043-08-4D, variant derivs.
                                                 438043-09-5
                                                             438043-09-5D.
     variant derivs. 438043-10-8 438043-10-8D, variant derivs.
     438043-11-9 438043-11-9D, variant derivs.
                                                438043-12-0
                                                             438043-12-0D,
     variant derivs. 438043-13-1 438043-13-1D, variant derivs.
     438043-14-2 438043-14-2D, variant derivs.
                                                 438043-15-3
                                                              438043-15-3D,
     variant derivs. 438043-16-4 438043-16-4D, variant derivs.
                                                 438043-18-6
     438043-17-5 438043-17-5D, variant derivs.
                                                             438043-18-6D,
     variant derivs. 438043-19-7 438043-19-7D, variant derivs.
     438043-20-0 438043-20-0D, variant derivs. 438043-22-2 438043-22-2D,
     variant derivs. 438043-23-3 438043-23-3D, variant derivs.
     438043-24-4 438043-24-4D, variant derivs.
                                                438043-25-5
                                                             438043-25-5D,
     variant derivs. 438043-26-6 438043-26-6D, variant derivs.
     438043-27-7 438043-27-7D, variant derivs.
                                                 438043-28-8
                                                             438043-28-8D,
     variant derivs. 438043-29-9 438043-29-9D, variant derivs.
     438043-30-2 438043-30-2D, variant derivs.
                                                438043-31-3
                                                             438043-31-3D.
     variant derivs. 438043-32-4
                                  438043-32-4D, variant derivs.
     438043-33-5 438043-33-5D, variant derivs.
                                                 438043-34-6
                                                             438043-34-6D,
     variant derivs. 438043-35-7 438043-35-7D, variant derivs.
     438043-36-8 438043-36-8D, variant derivs.
                                                 438043-37-9
                                                             438043-37-9D,
     variant derivs. 438043-39-1 438043-39-1D, variant derivs.
     438043-40-4 438043-40-4D, variant derivs. 438043-42-6
                                                             438043-43-7
                                           438043-47-1 438043-48-2
     438043-44-8 438043-45-9 438043-46-0
                 438043-50-6
                                            438043-52-8
438043-57-3
                               438043-51-7
     438043-49-3
                                                          438043-53-9
     438043-54-0
                 438043-55-1
                               438043-56-2
                                                          438043-58-4
     438043-59-5 438043-60-8
                              438043-61-9
                                           438043-62-0 438043-63-1
     438043-64-2 438043-65-3 438043-66-4 438043-67-5 438043-68-6
     438043-69-7 438043-70-0 438043-71-1 438043-72-2 438043-73-3
     438043-74-4 438043-75-5 438043-76-6 438043-77-7 438043-79-9
                 438043-83-5 461638-41-5 463461638-42-6D, variant derivs.
                                            461638-41-5D, variant derivs.
     438043-81-3
     461638-42-6
                                                461638-43-7
                                                             461638-43-7D,
     variant derivs. 461638-44-8 461638-44-8D, variant derivs.
     461638-45-9 461638-45-9D, variant derivs. 461638-46-0 461638-46-0D,
     variant derivs. 461638-47-1 461638-47-1D, variant derivs.
     461638-48-2 461638-48-2D, variant derivs.
     RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (peptides from A-region of protein kinases which selectively modulate
       protein kinase activity)
     438582-71-9
     RL: PRP (Properties)
        (unclaimed sequence; short peptides from the 'A-region' of protein
       kinases which selectively modulate protein kinase activity)
     50-99-7, D-Glucose, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (uptake; peptides from A-region of protein kinases which selectively
       modulate protein kinase activity)
L45 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
     2002:675784 HCAPLUS
     137:210957
    Entered STN: 08 Sep 2002
     sequences of protein 14273 from human and mouse, and methods for the
     treatment of metabolic disorders, including obesity and diabetes
     Gimeno, Ruth; Tsai, Fong-Ying
    Millennium Pharmaceuticals, Inc., USA
    PCT Int. Appl., 95 pp.
     CODEN: PIXXD2
```

IT

·IT

AN DN

ED

ТT

IN

PA

```
DT
     Patent
     English
LА
     ICM A61K
IC
     1-10 (Pharmacology)
     Section cross-reference(s): 3, 6, 13
FAN.CNT 1
     PATENT NO.
                        KIND DATE
                                            APPLICATION NO.
                                                                      DATE
                                 -----
                                             -----
                        ----
                                                                     -----
     _____
    WO 2002067868 A2
WO 2002067868 A3
                                             WO 2002-US6131
ΡI
                                 20020906
                                                                      20020226
     WO 2002067868
                          A3
                                 20030306
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2002177151
                          A1 20021128
                                            US 2002-86181
                                                                     20020226
PRAI US 2001-271655P
                          Р
                                 20010226
CLASS
               CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 _____
                        A61K
WO 2002067868 ICM A61K
WO 2002067868 ECLA C07K014/705; C07K014/72B; C12Q001/68M6
 US 2002177151 NCL
                        435/006.000; 435/091.200
                 ECLA C07K014/705; C07K014/72B; C12Q001/68M6
     The present invention provides protein and cDNA sequences of human and
AB
     mouse protein 14273 that are expressed at high levels in adipose tissues
     (white and brown adipose tissues) and pancreatic tissues. The 14273 gene
     expression has been further found to be upregulated during exposure to
     cold, and down-regulated in genetic model of obesity. The present
     invention relates to methods and compns. for the diagnosis and treatment
     of metabolic disorders, including, but not limited to, obesity, diabetes,
     overweight, anorexia, or cachexia. The invention further provides methods
     for identifying a compound capable of treating a metabolic disorder. The
     invention also provides methods for identifying a compound capable of
     modulating a metabolic activity. Yet further, the invention provides a
     method for modulating a metabolic activity. In addition, the invention
     provides a method for treating a subject having a metabolic disorder
     characterized by aberrant 14273 polypeptide activity or aberrant 14273
     nucleic acid expression. In another aspect, the invention provides
     methods for modulating lipogenesis in a subject and methods for modulating
     lipolysis in a subject. In yet another aspect, the invention provides
     methods for regulating endogenous glucose levels.
     sequence protein human mouse metabolic disorder obesity diabetes therapy
ST
TΤ
     Proteins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (14273; sequences of protein 14273 from human and mouse, and methods
        for treatment of metabolic disorders, including obesity and diabetes)
     Adipose tissue
IT
        (adipocyte, hyperplastic or hypertrophic growth, treatment of;
        sequences of protein 14273 from human and mouse, and methods for
        treatment of metabolic disorders, including obesity and diabetes)
IT
     Gel electrophoresis
        (agarose, for detecting 14273; sequences of protein 14273 from human
        and mouse, and methods for treatment of metabolic disorders, including
        obesity and diabetes)
TT
     Antisense DNA
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (anti-14273; sequences of protein 14273 from human and mouse, and
```

methods for treatment of metabolic disorders, including obesity and diabetes)

Adipose tissue TΤ

> (brown, high level of 14273 gene expression in; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

Metabolism, animal IT

(disorder, treatment of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

TT

RL: BSU (Biological study, unclassified); BIOL (Biological study) (encoding protein 14273, tissue distribution; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes) Northern blot hybridization

TT

Nucleic acid amplification (method)

Southern blot hybridization

(for detecting 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

Nucleic acid hybridization TΤ

(for detecting the presence of protein 14273 in a sample; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Genetic vectors

> (for expressing protein 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

TT Gene therapy

(for modulating the levels or activities of protein 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Nucleic acid hybridization

(in situ, for detecting 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

ľΤ Antibodies and Immunoglobulins

RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(labeled, to protein 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

Primers (nucleic acid) TΤ

Probes (nucleic acid)

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (labeled; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

TΤ Lipids, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (lipolysis, modulation of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Second messenger system

(modulation of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Diagnosis

> (mol.; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

TT Mutagenesis

(on 14273 gene; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Lipids, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(production, modulation of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Antidiabetic agents

Antiobesity agents

Drug screening

Human

Molecular cloning

Protein sequences

cDNA sequences

(sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Antibodies and Immunoglobulins

RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(to protein 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Mus

(transgenic; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Diabetes mellitus

Obesity

(treatment of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT Adipose tissue

(white, high level of 14273 gene expression in; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

disorders, including obesity and diabetes)
IT 456538-24-2P, Protein (human clone 14273) 456538-26-4P, Protein (mouse clone 14273)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(amino acid sequence; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT 9012-36-6, Agarose

RL: DEV (Device component use); USES (Uses)

(gel electrophoresis, for detecting 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT 456538-23-1 456538-25-3

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nucleotide sequence; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

IT 456540-70-8, 3: PN: WO02067868 SEQID: 3 unclaimed DNA 456540-71-9, 6: PN: WO02067868 SEQID: 6 unclaimed DNA 456540-72-0 456540-73-1 456540-74-2 456540-75-3 456540-76-4 456540-77-5 456540-78-6 456540-79-7 456540-80-0 456540-81-1

RL: PRP (Properties)

(unclaimed nucleotide sequence; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including obesity and diabetes)

- L45 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
- AN 2002:466175 HCAPLUS
- DN 137:43447
- ED Entered STN: 21 Jun 2002
- TI Short peptides from the "A-region" of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use

```
ΤN
     Ben-Sasson, Shmuel
PΑ
     Children's Medical Center Corporation, USA; Yissum Research and
     Development
     PCT Int. Appl., 143 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
     ICM C12N009-12
IC
     ICS A61K038-45; C12Q001-48
     7-3 (Enzymes)
     Section cross-reference(s): 1
FAN.CNT 2
     PATENT NO.
                        KIND DATE
                                            APPLICATION NO.
                                                                   DATE
                                -----
                                            -----
                         ----
     WO 2002048336
                                20020620
                                            WO 2001-US47443
PΙ
                         A2
                                                                    20011211
     WO 2002048336
                         A3
                                20030313
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                     A1
                                          US 2000-734520 20001211
                              20020822
     US 2002115173
                                            AU 2002-28912
     AU 2002028912
                          A5
                                20020624
                                                                    20011211
PRAI US 2000-734520
                                20001211
                         Α
    WO 2001-US47443
                                20011211
CLASS
 PATENT NO.
                CLASS PATENT FAMILY CLASSIFICATION CODES
                ----
                        _____
                        C12N009-12
 WO 2002048336
                 ICM
                 ICS
                        A61K038-45; C12Q001-48
 WO 2002048336
              ECLA C12N009/12B1
US 2002115173 NCL
                        435/194.000; 435/070.210; 435/007.920
                ECLA
                        C12N009/12B1
os
     MARPAT 137:43447
AB
     The present invention concerns compds. comprising, within short sequences
     from a specific region of the kinase, that can modulate kinase-associated
     signal transduction. The present invention allows a method for
     identifying compds. that are candidates for modulating kinase-associated
     signal transduction. The present invention also enables obtaining compds.
     that can modulate the kinase-associated signal transduction. The present
     invention also concerns a method for the modulation of kinase-associated
     signal transduction comprising the administration of the compds. This
     method may be used for the treatment of a plurality of diseases that are
     caused by or are result of non-normal kinase activity.
ST
     protein kinase A region peptide signal transduction therapeutic
IT
     Adipose tissue
        (adipocyte, lipogenesis by; short peptides from A-region of protein
        kinases which selectively modulate kinase activity and kinase-associated
        signal transduction and their therapeutic use)
     Antiarteriosclerotics
IT
        (antiatherosclerotics; short peptides from A-region of protein kinases
        which selectively modulate kinase activity and kinase-associated signal
        transduction and their therapeutic use)
TΤ
    Nervous system, disease
        (central, treatment of; short peptides from A-region of protein kinases
        which selectively modulate kinase activity and kinase-associated signal
        transduction and their therapeutic use)
     Nervous system, disease
IT
        (degeneration, treatment of; short peptides from A-region of protein
        kinases which selectively modulate kinase activity and kinase-associated
        signal transduction and their therapeutic use)
IT
     Bone, disease
```

(healing, in signal transduction test assay; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) Appetite TT Biological transport Body weight Granulation tissue Infection Inflammation Neoplasm (in signal transduction test assay; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) ΤТ Cytokines Hormones, animal, biological studies RL: ANT (Analyte); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (in signal transduction test assay; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) Lipids, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study) (lipogenesis by adipocytes; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) IT Neoplasm (metastasis, in signal transduction test assay; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) TΤ Axon (outgrowth, in signal transduction test assay; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) ΙT Phosphorylation, biological (protein; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) IT Animal tissue (remodeling, in signal transduction test assay; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) Artery, disease IT (restenosis, treatment of; short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) IΤ Anti-inflammatory agents Antidiabetic agents Antiobesity agents Antitumor agents Cell differentiation Cell morphology Cell proliferation Drug screening Immunomodulators Peptidomimetics Protein sequences Secretion (process) Signal transduction, biological (short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and their therapeutic use) TT Peptides, biological studies RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (short peptides from A-region of protein kinases which selectively modulate kinase activity and kinase-associated signal transduction and

```
their therapeutic use)
IT
    Osteoporosis
        (therapeutic agents; short peptides from A-region of protein kinases
        which selectively modulate kinase activity and kinase-associated signal
        transduction and their therapeutic use)
TΤ
    Alopecia
    Autoimmune disease
     Cardiovascular system, disease
    Skin, disease
        (treatment of; short peptides from A-region of protein kinases which
        selectively modulate kinase activity and kinase-associated signal
        transduction and their therapeutic use)
     Biological transport
TT
        (uptake, of glucose; short peptides from A-region of protein kinases
        which selectively modulate kinase activity and kinase-associated signal
        transduction and their therapeutic use)
    Amino acids, biological studies
TΥ
    RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (D-; short peptides from A-region of protein kinases which selectively
        modulate kinase activity and kinase-associated signal transduction and
        their therapeutic use)
    142008-29-5, Protein kinase A
TΤ
     RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (Ca subunit; short peptides from A-region of protein kinases
        which selectively modulate kinase activity and kinase-associated signal
        transduction and their therapeutic use)
     88201-45-0, Insulin receptor kinase
                                          114051-78-4, LCK kinase
ΙT
     137010-36-7, NGF receptor tyrosine kinase
                                                137632-06-5, CSK protein
            140208-17-9, LYN kinase 141349-89-5, SRC kinase
                                                                  145539-86-2,
    kinase
    HCK kinase
                 146279-92-7, Gene ret receptor tyrosine kinase
                                                                   153190-61-5,
                                            162032-63-5, Discoidin domain
                  161384-16-3, Jak kinase
     Tyk2 kinase
     receptor tyrosine kinase 199015-85-5, Activin receptor-like kinase
     372092-80-3, Protein kinase
                                   386705-49-3, VEGF receptor tyrosine kinase
                                              438042-69-4 438042-70-7
                  438042-67-2 438042-68-3
     438042-66-1
     438042-71-8
                  438042-72-9
                                 438042-73-0
                                               438042-74-1
                                                             438042-75-2
                  438042-77-4
     438042-76-3
                                 438042-78-5
                                               438042-79-6
                                                            438042-80-9
     438042-81-0
                  438042-82-1
                                 438042-83-2
                                               438042-84-3
                                                            438042-85-4
                                               438042-89-8
                                                             438042-90-1
     438042-86-5
                  438042-87-6
                                 438042-88-7
     438042-91-2
                  438042-92-3
                                 438042-93-4
                                               438042-94-5
                                                            438042-95-6
                  438042-97-8
     438042-96-7
                                 438042-98-9
                                               438042-99-0
                                                             438043-00-6
                   438043-02-8
                                 438043-03-9
                                               438043-04-0
                                                             438043-05-1
     438043-01-7
                                               438043-09-5
                                                             438043-10-8
                  438043-07-3
                                 438043-08-4
     438043-06-2
                  438043-12-0
                                 438043-13-1
                                               438043-14-2
                                                             438043-15-3
     438043-11-9
     438043-16-4
                  438043-17-5
                                 438043-18-6
                                               438043-19-7
                                                             438043-20-0
                                 438043-23-3
                                               438043-24-4
                                                             438043-25-5
                  438043-22-2
     438043-21-1
                                                             438043-30-2
                                 438043-28-8
                                               438043-29-9
     438043-26-6
                  438043-27-7
                                                             438043-35-7
     438043-31-3
                  438043-32-4
                                 438043-33-5
                                               438043-34-6
     438043-36-8
                  438043-37-9
                                 438043-38-0
                                               438043-39-1
                                                             438043-40-4
                  438043-42-6
                                 438043-43-7
                                               438043-44-8
                                                             438043-45-9
     438043-41-5
                  438043-47-1
                                 438043-48-2
                                               438043-49-3
                                                             438043-50-6
     438043-46-0
     438043-51-7
                  438043-52-8
                                 438043-53-9
                                               438043-54-0
                                                             438043-55-1
                   438043-57-3
                                 438043-58-4
                                               438043-59-5
                                                             438043-60-8
     438043-56-2
                  438043-62-0
                                               438043-64-2
                                                             438043-65-3
     438043-61~9
                                 438043-63-1
     438043-66-4
                  438043-67-5
                                 438043-68-6
                                               438043-69-7
                                                             438043-70-0
     438043-71-1
                  438043-72-2
                                 438043-73-3
                                               438043-74-4
                                                             438043-75-5
                  438043-77-7
                                 438043-79-9
                                               438043-81-3
                                                             438043-83-5
     438043-76-6
     RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (short peptides from A-region of protein kinases which selectively
        modulate kinase activity and kinase-associated signal transduction and
        their therapeutic use)
ΙT
    56-41-7, L-Alanine, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
```

(Biological study); USES (Uses)

```
(short peptides from A-region of protein kinases which selectively
        modulate kinase activity and kinase-associated signal transduction and
        their therapeutic use)
     438582-71-9 438582-72-0
                                 438582-73-1
                                                438582-74-2
                                                              438582-75-3
IT
                  438582-77-5
                                 438582-79-7
                                                438582-80-0
                                                              438582-81-1
     438582-76-4
                                 438582-84-4
                                                438582-85-5
     438582-82-2 438582-83-3
     RL: PRP (Properties)
        (unclaimed sequence; short peptides from the "A-region" of protein
        kinases which selectively modulate kinase activity and kinase-associated
        signal transduction and their therapeutic use)
     50-99-7, Glucose, biological studies
IT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (uptake and blood level; short peptides from A-region of protein
        kinases which selectively modulate kinase activity and kinase-associated
        signal transduction and their therapeutic use)
L45 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
     2002:172081 HCAPLUS
     136:227973
DN
ED
     Entered STN: 08 Mar 2002
     Protein and cDNA sequences of a novel human G protein-coupled receptor
TI
     sequence homolog and diagnostic and therapeutic uses thereof for metabolic
    Glucksmann, Maria Alexdandra
IN
PΑ
    Millennium Pharmaceuticals, Inc., USA
     PCT Int. Appl., 114 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
    English
     ICM C12N015-00
TC
     3-3 (Biochemical Genetics)
     Section cross-reference(s): 1, 6, 13
FAN.CNT 1
     PATENT NO.
                        KIND DATE
                                            APPLICATION NO.
                                                                    DATE
                                -----
                                            -----
     -----
                         _ - - -
     WO 2002018579
                         A2
                                20020307
                                            WO 2001-US26882
                                                                    20010829
PΤ
     WO 2002018579
                          A3
                                20030417
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2001086877
                          A5
                                20020313
                                            AU 2001-86877
                                                                    20010829
     US 2002137063
                                20020926
                                            US 2001-942374
                                                                    20010829
                          A1
                                20040506
                                            US 2003-665956
                                                                    20030918
     US 2004086921
                          A1
PRAI US 2000-228409P
                         P
                                20000829
     US 2001-942374
                          B1
                                20010829
     WO 2001-US26882
                          W
                                20010829
CLASS
                 CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 _____
 WO 2002018579
                        C12N015-00
                 ICM
 WO 2002018579
                 ECLA
                        C07K014/705
                        435/006.000; 435/007.100; 435/069.100; 435/320.100;
 US 2002137063
                 NCL
                        435/325.000; 530/350.000; 530/388.100; 536/023.500
                 ECLA
                        C07K014/705
                        435/006.000; 435/069.100; 435/320.100; 435/325.000;
 US 2004086921
                 NCL
                        530/350.000; 536/023.500
                 ECLA
                        C07K014/705
     The invention provides protein and cDNA sequences of a novel human
```

protein, designated 57242, which has sequence homol. with G protein-coupled receptor family members. The invention also provides antisense nucleic acid mols., recombinant expression vectors containing 57242 nucleic acid mols., host cells into which the expression vectors have been introduced, and nonhuman transgenic animals in which a 57242 gene has been introduced or disrupted. The invention still further provides isolated 57242 proteins, fusion proteins, antigenic peptides and anti-57242 antibodies. Methods of use of the provided 57242 compns. for screening, diagnostic and therapeutic methods in connection with metabolic disorders are also disclosed. The present invention relates to methods and compns. for the diagnosis and treatment of metabolic disorders, including, but not limited to, obesity, diabetes, hyperlipidemia, overweight anorexia, or cachexia.

ST G protein coupled receptor homolog cDNA sequence human

T Disease, animal

(adipose tissue, hyperplastic or hypertrophic, treatment of; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Adipose tissue

(disease, hyperplastic or hypertrophic, treatment of; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Metabolism, animal

(disorder, treatment of; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Bone formation

(disorders associated with, treatment of; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT DNA

RL: ANT (Analyte); ANST (Analytical study)
(encoding 57242, detection of; protein and cDNA sequences of novel
human G protein-coupled receptor sequence homolog and diagnostic and
therapeutic uses thereof for metabolic disorders)

IT cDNA

RL: BSU (Biological study, unclassified); BIOL (Biological study) (encoding G protein-coupled receptor sequence homolog 57242; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Test kits

(for detecting G protein-coupled receptor sequence homolog 57242; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Gel electrophoresis

Immunoassay

Northern blot hybridization

Nucleic acid hybridization

Southern blot hybridization

(for detecting the presence of G protein-coupled receptor sequence homolog in a sample; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Genetic vectors

(for expressing G protein-coupled receptor sequence homolog 57242; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Gene therapy

(for modulating the levels or activities of 57242; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Diagnosis

(genetic; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Lipids, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (hyperlipidemia, treatment of; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Nucleic acid hybridization

(in situ, for detecting the presence of G protein-coupled receptor sequence homolog in a sample; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Lipids, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lipolysis, disorders associated with, treatment of; protein and cDNA
sequences of novel human G protein-coupled receptor sequence homolog
and diagnostic and therapeutic uses thereof for metabolic disorders)
Animal cell

(mammalian, as host; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Lipids, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(metabolic disorders, lipogenesis, treatment of; protein and cDNA
sequences of novel human G protein-coupled receptor sequence homolog
and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Antisense DNA

IT

Ribozymes

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(modulator for 57242 expression or activity; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Diagnosis

(mol.; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Antidiabetic agents

Antiobesity agents

Drug screening

Human

Molecular cloning

Protein sequences

cDNA sequences

(protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Primers (nucleic acid)

Probes (nucleic acid)

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT G protein-coupled receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (sequence homolog; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

IT Antibodies and Immunoglobulins

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(to G protein-coupled receptor sequence homolog; protein and cDNA sequences of novel human G protein-coupled receptor sequence homolog and diagnostic and therapeutic uses thereof for metabolic disorders)

```
Anorexia
     Bone, disease
     Cachexia
        (treatment of; protein and cDNA sequences of novel human G
        protein-coupled receptor sequence homolog and diagnostic and
        therapeutic uses thereof for metabolic disorders)
IT
     403067-53-8P
    RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (amino acid sequence; protein and cDNA sequences of novel human G
        protein-coupled receptor sequence homolog and diagnostic and
        therapeutic uses thereof for metabolic disorders)
     403067-52-7
                 403067-54-9
IT
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (nucleotide sequence; protein and cDNA sequences of novel human G
        protein-coupled receptor sequence homolog and diagnostic and
        therapeutic uses thereof for metabolic disorders)
IT
     403070-95-1, 4: PN: WO0218579 SEQID: 4 unclaimed DNA
                                                            403070-96-2, 5: PN:
     WOO218579 SEQID: 5 unclaimed DNA 403070-97-3, 6: PN: WO0218579 SEQID: 6
     unclaimed DNA 403070-98-4, 7: PN: WO0218579 SEQID: 7 unclaimed DNA
     403070-99-5, 8: PN: WO0218579 SEQID: 8 unclaimed DNA 403071-00-1, 9: PN:
     WO0218579 SEQID: 9 unclaimed DNA
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; protein and cDNA sequences of a novel
        human G protein-coupled receptor sequence homolog and diagnostic and
        therapeutic uses thereof for metabolic disorders)
L45 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
     2000:573930 HCAPLUS
AN
DN
     133:159935
     Entered STN: 18 Aug 2000
ED
TΙ
     Inhibiting formation of atherosclerotic lesions by reducing adipocyte
     fatty acid binding protein (AFABP)
TN
     Haber, Edgar; Lee, Mu-en; Perrella, Mark A.; Hotamisligil, Gokhan S.
     President and Fellows of Harvard College, USA; Haber, Carol
PΑ
     PCT Int. Appl., 43 pp.
SO
     CODEN: PIXXD2
DT
     Patent
T<sub>1</sub>A
     English
IC
     ICM C12N015-11
     ICS A61K031-7088; A61K039-395; G01N033-68
     1-8 (Pharmacology)
CC
     Section cross-reference(s): 3, 14
FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                           APPLICATION NO.
                                                                  DATE
                        ----
                                _____
                                            _____
                                                                   _____
    WO 2000047734
                                           WO 2000-US3560
                         A1
                                20000817
                                                                   20000211
PΤ
        W: AU, CA, JP, US
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                         AΑ
                                20000817
                                            CA 2000-2361335
     CA 2361335
     EP 1151092
                         A1
                                20011107
                                          EP 2000-908604
                                                                   20000211
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2002536459
                         T2
                                20021029
                                           JP 2000-598632
                                                                   20000211
PRAI US 1999-119880P
                         A2
                                19990212
    WO 2000-US3560
                         W
                                20000211
CLASS
 PATENT NO.
                CLASS PATENT FAMILY CLASSIFICATION CODES
 -----
                ----
                       WO 2000047734
                ICM
                       C12N015-11
                       A61K031-7088; A61K039-395; G01N033-68
                ICS
WO 2000047734 ECLA
                       C12N015/11B
AB The invention features a method of inhibiting formation of atherosclerotic
```

lesions by administering to a mammal, e.g., a human patient who has been identified as suffering from or at risk of developing atherosclerosis, a compound that reduces expression or activity of adipocyte fatty acid binding protein (AFABP or aP2). Inhibiting AFABP expression or activity reduced the development of atherosclerotic lesions despite a high level of serum cholesterol. Mice with a null mutation in the genes for apoE or both apoE and AFABP were used for the study.

ST atherosclerosis inhibition adipocyte fatty acid binding protein; aP2 protein antiatherosclerotic

IT Hypercholesterolemia

(AFABP-deficient mice resistance to; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Apolipoproteins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(E, gene for, null mutation in; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Phosphoproteins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(aP2 (adipocyte protein 2); inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Adipose tissue

(adipocyte, inhibition of AFABP expression in; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Antiarteriosclerotics

(antiatherosclerotics; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Antisense DNA

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (as inhibitor; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Antisense oligonucleotides

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (as inhibitor; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Genetic element

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(cis regulatory element, of AFABP, inhibition of; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Fatty acids, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(complexes, with AFABP, in drug screening; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Cell

(expressing AFABP, in drug screening; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT Artery

(foam cell, inhibition of macrophage differentiation into; inhibiting formation of atherosclerotic lesions by reducing adipocyte fatty acid binding protein (AFABP))

IT mRNA

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(for AFABP, antisense nucleic acid to, as inhibitor; inhibiting

```
formation of atherosclerotic lesions by reducing adipocyte fatty acid
        binding protein (AFABP))
     Gene, animal
IT
     RL: ADV (Adverse effect, including toxicity); BSU (Biological study,
     unclassified); BIOL (Biological study)
        (for apoE and AFABP, null mutation in; inhibiting formation of
        atherosclerotic lesions by reducing adipocyte fatty acid binding
        protein (AFABP))
TΤ
     Fatty acids, biological studies
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (in drug screening; inhibiting formation of atherosclerotic lesions by
        reducing adipocyte fatty acid binding protein (AFABP))
TΤ
     Artery
     Drug screening
     Mammal (Mammalia)
        (inhibiting formation of atherosclerotic lesions by reducing adipocyte
        fatty acid binding protein (AFABP))
IT
     Macrophage
        (inhibition of AFABP expression in; inhibiting formation of
        atherosclerotic lesions by reducing adipocyte fatty acid binding
        protein (AFABP))
IT
     Promoter (genetic element)
     RL: BPR (Biological process); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
        (macrophage-specific, antisense DNA linked to; inhibiting formation of
        atherosclerotic lesions by reducing adipocyte fatty acid binding
        protein (AFABP))
     Transcription, genetic
        (of AFABP, inhibition of; inhibiting formation of atherosclerotic
        lesions by reducing adipocyte fatty acid binding protein (AFABP))
     Cell differentiation
        (of macrophage into foam cell, inhibition of; inhibiting formation of
        atherosclerotic lesions by reducing adipocyte fatty acid binding
        protein (AFABP))
тт
     57-88-5, Cholesterol, biological studies
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
        (inhibiting formation of atherosclerotic lesions by reducing adipocyte
        fatty acid binding protein (AFABP))
     139817-95-1, 7: PN: WO0047734 SEQID: 1 unclaimed DNA
IT
                                                             140602-12-6
     288106-38-7, 1: PN: WO0047734 SEQID: 2 unclaimed DNA
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; inhibiting formation of atherosclerotic
        lesions by reducing adipocyte fatty acid binding protein (AFABP))
     123505-46-4, Phosphoprotein ALBP (human clone λH-ALBP precursor
IT
     protein moiety reduced)
                               288106-39-8
     RL: PRP (Properties)
        (unclaimed protein sequence; inhibiting formation of atherosclerotic
        lesions by reducing adipocyte fatty acid binding protein (AFABP))
IT
     220264-61-9
                  288067-91-4
     RL: PRP (Properties)
        (unclaimed sequence; inhibiting formation of atherosclerotic lesions by
        reducing adipocyte fatty acid binding protein (AFABP))
              THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 9
(1) Dana Farber Cancer Inst Inc; WO 9206104 A 1992 HCAPLUS
(2) Horvai, A; PROC NATL ACAD SCI U S A 1995, V92(12), P5391 HCAPLUS
(3) Hotamisligil, G; SCIENCE 1996, V274(5291), P1377 HCAPLUS
(4) Incyte Pharma Inc; WO 9845440 A 1998 HCAPLUS
(5) Lyle, R; BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS 1996, V228(3),
    P709 HCAPLUS
(6) Pelton, P; BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS 1999,
    V261(2), P456 HCAPLUS
(7) Richieri, G; JOURNAL OF BIOLOGICAL CHEMISTRY 1994, V269(39), P23918 HCAPLUS
(8) Squibb Bristol Myers Co; WO 0015230 A 2000 HCAPLUS
```

(9) Wolfrum, C; BIOCHIMICA ET BIOPHYSICA ACTA 1999, V1437(2), P194 HCAPLUS

```
L45 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
    2000:548711 HCAPLUS
AN
DN
    133:129884
ED
    Entered STN: 10 Aug 2000
    Modulation of the sulfonylurea receptor and calcium in adipocytes for
TI
    treatment of obesity/diabetes, and screening method
    Wilkison, William O.; Zemel, Michael B.; Moustaid-Mousse, Naima
IN
    Zen Bio, Inc., USA; The University of Tennessee Research Corporation
PA
    U.S., 17 pp.
SO
    CODEN: USXXAM
DT
    Patent
    English
LA
    ICM G01N033-566
ICS G01N033-567
INCL 435007200
CC 1-10 (Pharmacology)
FAN.CNT 1
                              DATE APPLICATION NO.
    PATENT NO.
                      KIND DATE
                                                               DATE
                       A 20000808 US 1999-287907
     _____
                      A
    US 6100047
                                                               19990407
                      B1 20010605 US 2000-592420
    US 6242200
                      B1 20021210
                                         US 2000-592019
    US 6492130
                                                               20000612
                   B1
P
    US 6569633
                             20030527
                                         US 2000-592421
                                                               20000612
PRAI US 1998-81189P
                              19980408
                       A3 19990407
    US 1999-287907
CLASS
               CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
 -----
US 6100047
               ICM
                      G01N033-566
               ICS
                      G01N033-567
               INCL 435007200
US 6100047
               NCL
                      435/007.200; 435/007.100; 435/007.210
               ECLA G01N033/50D2; G01N033/92
               NCL
ECLA
                      435/007.210; 435/007.100; 435/007.200
US 6242200
                      G01N033/50D2; G01N033/92
                      435/014.000; 435/007.210; 435/026.000
US 6492130
               NCL
               ECLA G01N033/50D2; G01N033/92
 US 6569633
               NCL
                      435/007.210; 435/007.100; 435/007.200
                     G01N033/50D2; G01N033/92
               ECLA
    Methods are provided for identifying compds. and compns. useful in the
AB
    regulation of weight, the treatment of obesity, diabetes and other insulin
    resistance-related disorders hypertension, cardiovascular disease, etc.
    The methods comprise the use of adipocytes and preadipocytes in assays and
    screens for compds. or compns. of interest. The invention recognizes the
    presence of the sulfonylurea receptor in adipocytes and its utility in
    identifying compds. and in treating obesity and other insulin
    resistance-related disorders. The methods of the invention also provide
    for identifying novel calcium channels or other calcium regulatory
    channels that are selectively expressed in human adipocytes as compared to
    human preadipocytes and for screening adipocytes for compds. that
    selectively antagonize calcium. These compds. may be used in the
    treatment of obesity and diabetes and other insulin resistance-related
    disorders. Once identified, the compds. of the invention can be used in
    pharmaceutical compns. for the treatment of insulin resistance-related
    disorders and to regulate lipogenesis and lipolysis.
    sulfonyl receptor modulation adipocyte obesity diabetes drug screening;
    calcium channel adipocyte obesity diabetes drug screening; insulin
    resistance disorder drug screening; hypertension cardiovascular disease
    drug screening; lipogenesis lipolysis drug screening
IT
    Gene, animal
    RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
```

(SUR1; sulfonylurea receptor and calcium modulation in adipocytes for

treatment of obesity/diabetes, and screening method)

```
ΙT
    Adipose tissue
        (adipocyte; sulfonylurea receptor and calcium modulation in adipocytes
        for treatment of obesity/diabetes, and screening method)
    Ion channel blockers
IT
        (calcium; sulfonylurea receptor and calcium modulation in adipocytes
        for treatment of obesity/diabetes, and screening method)
     Biological transport
IT
        (influx; sulfonylurea receptor and calcium modulation in adipocytes for
        treatment of obesity/diabetes, and screening method)
     Lipids, biological studies
     RL: BPR (Biological process); BSU (Biological study, unclassified); MFM
     (Metabolic formation); BIOL (Biological study); FORM (Formation,
     nonpreparative); PROC (Process)
        (lipogenesis; sulfonylurea receptor and calcium modulation in
        adipocytes for treatment of obesity/diabetes, and screening method)
ΙT
    Lipids, biological studies
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (lipolysis; sulfonylurea receptor and calcium modulation in adipocytes
        for treatment of obesity/diabetes, and screening method)
     Antidiabetic agents
TТ
     Antiobesity agents
     Drug screening
        (sulfonylurea receptor and calcium modulation in adipocytes for
        treatment of obesity/diabetes, and screening method)
IT
    Calcium channel
       Glycerides, biological studies
     Potassium channel
     Sulfonylurea receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (sulfonylurea receptor and calcium modulation in adipocytes for
        treatment of obesity/diabetes, and screening method)
     9004-10-8, Insulin, biological studies 9045-77-6, Fatty acid synthase
IT
     9075-65-4, Glycerol-3-phosphate dehydrogenase
     RL: BAC (Biological activity or effector, except adverse); BPR (Biological
     process); BSU (Biological study, unclassified); BIOL (Biological study);
     PROC (Process)
        (sulfonylurea receptor and calcium modulation in adipocytes for
        treatment of obesity/diabetes, and screening method)
TΥ
     364-98-7, Diazoxide 11024-24-1, Digitonin
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); BIOL (Biological study)
        (sulfonylurea receptor and calcium modulation in adipocytes for
        treatment of obesity/diabetes, and screening method)
     10238-21-8, Glibenclamide 21829-25-4, Nifedipine
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (sulfonylurea receptor and calcium modulation in adipocytes for
        treatment of obesity/diabetes, and screening method)
     50-99-7, D-Glucose, biological studies 56-81-5, 1,2,3-Propanetriol,
IT
                                    7440-70-2, Calcium, biological studies
                         60-92-4
     biological studies
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (sulfonylurea receptor and calcium modulation in adipocytes for
        treatment of obesity/diabetes, and screening method)
             THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 40
(1) Abel; American Journal of Hypertension 1993, V6(6 Pt 1), P500 MEDLINE
(2) Aquilar-Bryan; Science 1995, V268, P423 HCAPLUS
(3) Alemzadeh; Endocrinology 1993, V133(2), P705 HCAPLUS
(4) Alemzadeh; J Clin Endocr Met 1998, V83(6), P1911 HCAPLUS
(5) Alemzadeh; Metabolism 1996, V45(4), P334
(6) Ambrozy; American Journal of Hypertension 1991, V4(7 Pt 1), P592 MEDLINE
(7) Bokvist; Proc R Soc Lond 1991, V243(1307), P139 HCAPLUS
```

```
(8) Byyny; American Journal of Hypertension 1992, V5(7), P459 MEDLINE
(9) Draznin; Diabetes 1987, V36, P174 HCAPLUS
(10) Draznin; The Journal of Biological Chemistry 1987, V262(30), P14385
    HCAPLUS
(11) Draznin; The Journal of Clinical Investigation 1988, V82(6), P1848 HCAPLUS
(12) Gilon; The Journal of Biological Chemistry 1993, V268(30), P22265 HCAPLUS
(13) Hani; Diabetes 1997, V46(4), P688 HCAPLUS
(14) Inagaki; Science 1995, V270, P1166 HCAPLUS
(15) Jacobs; J Biol Chem 1985, V260(5), P2593 HCAPLUS
(16) Jones; Am J Physiol 1996, V270, PE192 HCAPLUS
(17) Jones; Endocrinology 1997, V138(4), P1512 HCAPLUS
(18) Kim; Am J Physiol 1997, V272(3 Pt 1), PE379 MEDLINE
(19) Kim; The FASEB Journal 1996, V10(14), P1646 HCAPLUS
(20) Kwon; Proc Natl Acad Sci USA 1994, V91(21), P9760 HCAPLUS
(21) Lehmann; J Biol Chem 1996, V270(22), P12953
(22) Maloff; J Clin Invest 1981, V68, P85 HCAPLUS
(23) Martz; J Biol Chem 1989, V264(23), P13672 HCAPLUS
(24) Michaud; Journal of Endocrinology 1997, V155(2), P207 HCAPLUS
(25) Moustaid; J Nutr 1996, V126, P865 HCAPLUS
(26) Muller; Biochem Pharmacol 1994, V48(5), P985 MEDLINE
(27) Muller; Horm Metab Res 1996, V28, P469 MEDLINE
(28) Mynatt; Proc Natl Acad Sci USA 1997, V94(3), P919 HCAPLUS
(29) Perusse; Obesity Research 1999, V7(1), P111 HCAPLUS
(30) Philipson; Science 1995, V270, P1159 HCAPLUS
(31) Rajan; Endocrinology 1994, V134(3), P1581 HCAPLUS
(32) Sowers; American Journal of Hypertension 1991, V4(7 Pt 2), P466S MEDLINE
(33) Sturgess; The Lancet 1985, VII(8453), P474
(34) Thomas; Science 1995, V268, P426 HCAPLUS
(35) Xue; FASEB J 1998, V12, P1391 HCAPLUS
(36) Zemel; American Journal of Hypertension 1991, V4(6), P537 HCAPLUS
(37) Zemel; American Journal of Physiology 1992, V262(3 Pt 1), PE368 MEDLINE
(38) Zemel; J Nutr 1994, V125(6S), P1715S
(39) Zemel; J Nutr 1994, V125(6S), P1738S
(40) Zemel; Proc Natl Acad Sci USA 1995, V92, P4733 HCAPLUS
L45 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN
     1999:454261 HCAPLUS
DN
     131:98053
     Entered STN: 26 Jul 1999
ED
     Methods and compositions for treating and diagnosing insulin related
     disorders using insulin-derived polypeptides
     Duckworth, William Clifford; Hamel, Frederick G.
IN
PΑ
     PCT Int. Appl., 99 pp.
SO
     CODEN: PIXXD2
DT
     Patent
T.A
     English
     ICM C07K014-62
     ICS G01N033-68
CC
     2-6 (Mammalian Hormones)
FAN.CNT 1
                           KIND DATE
                                              APPLICATION NO.
     PATENT NO. .
                                                                        DATE
                                                -----
                                   -----
                                                                          -----
     WO 9935169
                                  19990715
                                                WO 1999-US471
PΙ
                           A2
                                                                         19990108
                                 19991007
                           A3
     WO 9935169
         W: AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
              FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2317674
                           AA
                                 19990715
                                               CA 1999-2317674
                                                                         19990108
                                               AU 1999-23138
```

19990108

AU 9923138

A1

19990726

```
A2
                           20001025
                                     EP 1999-903019
                                                         19990108
       R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
           IE, FI
    BR 9906833
                           20011127
                                      BR 1999-6833
                                                          19990108
                     T2
                           20020108
                                      JP 2000-527564
                                                          19990108
PRAI US 1998-70821P
WO 1999-US471
    JP 2002500234
                     P
                           19980108
                     W
                           19990108
CLASS
              CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
 FAIENI NO.
                    _____
WO 9935169
          ICM
                    C07K014-62
              ICS
                    G01N033-68
WO 9935169
             ECLA
                    C07K014/62
    The present invention relates to methods and compns. for treating or
```

The present invention relates to methods and compns. for treating or reducing the symptoms of a disorder of absolute or relative insulin deficiency, severe insulin resistance, of lipid accumulation or excess lipid synthesis, or of protein catabolism or degradation. A preferred method of treating or reducing symptoms of such a disorder includes administering a polypeptide that includes a sequence flanking an insulin degrading enzyme cleavage site of insulin. Such peptides preferably inhibit one or more activities of the complex of insulin degrading enzyme and multicatalytic proteinase. The invention also includes methods for detecting and for assessing treatments of such disorders based on measuring the activity of a complex between insulin degrading enzyme and multicatalytic proteinase.

ST insulin related disorder treatment diagnosis insulin derived polypeptide; multicatalytic proteinase insulin degrading enzyme complex inhibition

IT Muscle, disease

(atrophy; treatment and diagnosis of chronic wasting disease using insulin-derived polypeptides that inhibit the activity of the complex between insulin degrading enzyme and multicatalytic proteinase)

IT Diagnosis

(diabetes mellitus; treatment and diagnosis of insulin-related disorders using insulin-derived polypeptides that inhibit the activity of the complex between insulin degrading enzyme and multicatalytic proteinase)

IT Lipids, biological studies

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)

(formation; treatment and diagnosis of disorders involving excess lipid accumulation using insulin-derived polypeptides that inhibit the activity of the complex between insulin degrading enzyme and multicatalytic proteinase)

IT Heart, disease

(infarction; treatment and diagnosis of myocardial infarction using insulin-derived polypeptides that inhibit the activity of the complex between insulin degrading enzyme and multicatalytic proteinase)

IT Diabetes mellitus

(non-insulin-dependent; treatment and diagnosis of insulin-related disorders using insulin-derived polypeptides that inhibit the activity of the complex between insulin degrading enzyme and multicatalytic proteinase)

IT Injury

(trauma; treatment and diagnosis of severe stress using insulin-derived polypeptides that inhibit the activity of the complex between insulin degrading enzyme and multicatalytic proteinase)

IT AIDS (disease)

Anti-AIDS agents

Neoplasm

(treatment and diagnosis of chronic wasting disease using insulin-derived polypeptides that inhibit the activity of the complex between insulin degrading enzyme and multicatalytic proteinase)

IT Protein degradation

(treatment and diagnosis of disorders involving protein degradation using insulin-derived polypeptides that inhibit the activity of the complex between insulin degrading enzyme and multicatalytic proteinase)

```
Antidiabetic agents
     Antiobesity agents
     Diagnosis
     Drug screening
        (treatment and diagnosis of insulin-related disorders using
        insulin-derived polypeptides that inhibit the activity of the complex
        between insulin degrading enzyme and multicatalytic proteinase)
     Cardiovascular agents
TΤ
        (treatment and diagnosis of myocardial infarction using insulin-derived
        polypeptides that inhibit the activity of the complex between insulin
        degrading enzyme and multicatalytic proteinase)
TΤ
     Starvation, animal
     Stress, animal
        (treatment and diagnosis of severe stress using insulin-derived
        polypeptides that inhibit the activity of the complex between insulin
        degrading enzyme and multicatalytic proteinase)
        (wasting; treatment and diagnosis of chronic wasting disease using
        insulin-derived polypeptides that inhibit the activity of the complex
        between insulin degrading enzyme and multicatalytic proteinase)
     9004-10-8, Insulin, biological studies
TΤ
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
        (resistance; treatment and diagnosis of insulin-related disorders using
        insulin-derived polypeptides that inhibit the activity of the complex
        between insulin degrading enzyme and multicatalytic proteinase)
                  144775-20-2
IT
     99542-45-7
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (substrate sequence adjacent to the cleavage site for insulinase;
        treatment and diagnosis of insulin-related disorders using
        insulin-derived polypeptides that inhibit the complex between insulin
        degrading enzyme and multicatalytic proteinase)
     9013-83-6D, Insulin degrading enzyme, complexes with multicatalytic
     proteinase 140879-24-9D, Multicatalytic proteinase, complexes with
     insulin degrading enzyme
     RL: BAC (Biological activity or effector, except adverse); BPR (Biological
     process); BSU (Biological study, unclassified); BIOL (Biological study);
     PROC (Process)
        (treatment and diagnosis of insulin-related disorders using
        insulin-derived polypeptides that inhibit the activity of the complex
        between insulin degrading enzyme and multicatalytic proteinase)
     9004-10-8, Insulin, biological studies 9004-10-8D, Insulin, polypeptides, that include a sequence flanking an insulin degrading enzyme
     cleavage site, biological studies 111479-48-2 230647-03-7
     230647-04-8
                  230647-05-9
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (treatment and diagnosis of insulin-related disorders using
        insulin-derived polypeptides that inhibit the activity of the complex
        between insulin degrading enzyme and multicatalytic proteinase)
=> b stng
FILE 'STNGUIDE' ENTERED AT 11:18:05 ON 03 AUG 2005
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE
FILE CONTAINS CURRENT INFORMATION.
```

FILE 'HOME' ENTERED AT 11:18:13 ON 03 AUG 2005

LAST RELOADED: Jul 29, 2005 (20050729/UP).

=> b home

=>